DOCUMENT RESUME

ED 329 132 FL 800 137

AUTHOR Cook, Cindy; Godley, Vera, Ed.

TITLE Workplace Literacy: A Curriculum Development Guide.

INSTITUTION Altron Inc., Wilmington, MA.; Cambodian Mutual Assistance Association of Greater Lowell, MA.

SPONS AGENCY Office of Vocational and Adult Education (ED). Washington, DC. Div. of National Vocational Programs.

PUB DATE Dec 89

NOTE 139p.; Photographs and some captions will not reproduce well. Pages 77-82 contain extremely faint type. Best copy available.

PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC06 Plus Postage.

DESCRIPTORS Agency Cooperation; Asian Americans; Cambodians; *Curriculum Development; English (Second Language); *Inplant Programs; *Labor Education; *Literacy Education; Needs Assessment; Program Development; Second Language Programs; Student Needs; *Vocational Education

IDENTIFIERS *Workplace Literacy

ABSTRACT

This guide describes the process used by the Cambodian Mutual Assistance Association of Greater Lowell, and Altron, Inc., a local manufacturer, to design, establish, and operate a workplace literacy program. The first chapter outlines steps and considerations in setting up the program, including the establishment of a successful collaboration, assessment of company needs, scheduling, recruitment and selection, evaluation of student strengths and needs, classroom organization, and determination of teacher goals. Chapter 2 describes the participatory process and problem-posing approach used to develop issues of interest into lessons for instruction. The third chapter explains the technical training section of the program, which used participatory investigation of the processes, tasks, terminology, precepts of quality, and productivity guidelines used on the job to promote learning. Chapter 4 discusses the evaluation process and the participation of four groups: the evaluator for the federal grant, the company's management, the students, and the teacher. Appended materials include program needs assessment instruments and program guidelines, and worksheets and teacher instructions for the language and technical training components. An 18-item list of workplace literacy resources is also included. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 329132

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
V. Godley
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

WORKPLACE LITERACY:
A CURRICULUM DEVELOPMENT
GUIDE

Cambodian Mutual Assistance Association
of Greater Lowell, Inc.

Funded by the United States Department of Education
Office of Vocational and Adult Education

BEST COPY AVAILABLE

WORKPLACE LITERACY:
A CURRICULUM DEVELOPMENT GUIDE

**Cambodian Mutual Assistance Association
of Greater Lowell, Inc.**

**Funded by the United States Department of Education
Office of Vocational and Adult Education**

On the Job

In the Classroom

Acknowledgements

This curriculum development guide is the result of the participation of educators and company personnel. The Cambodian Mutual Assistance Association thanks the following people for their contributions and assistance in preparing this guide:

Dr. Paul E. Carlotto and the Management of Altron Inc. for their support and input into the program design and evaluation.
Burt Doo, Executive Vice President at Altron.
Cindy Cook, ESL teacher, Workplace Literacy Coordinator, and Author of the curriculum.
All the Students in the Workplace Literacy Class.
Vera Godley, Editor.
Elma Vaidya, Copy Editor.

Boran Reth, President, Cambodian Mutual Assistance Association, Lowell, Massachusetts, December 1989.

Editor's Preface

In October 1988 the Cambodian Mutual Assistance Association of Lowell, Massachusetts was the recipient of a Workplace Literacy Award from the United States Department of Education, Office of Vocational and Adult Education.

A Workplace Literacy Partnership has been successfully carried out with Altron Inc. of Wilmington in Middlesex County Massachusetts. The company manufactures printed circuit boards and like many other companies in the area has benefited from the employment pool created by the resettlement of 25,000 Southeast Asian refugees into Middlesex County in the last decade.

Altron has a workforce of about six hundred. Forty per cent are language minority workers. The company, recognizing the importance of investing in a workforce that can communicate effectively and read and write in English, is committed to continuing the workplace literacy program at the end of the grant award.

Through this collaboration employees have learnt the language of their jobs, have gained confidence in performing tasks, and are able to function more efficiently on the workfloor.

This curriculum development guide is a result of this partnership. It reflects both the importance of commitment by the company and the belief that students learn best from their own experiences. This guide demonstrates ways in which to foster company commitment and take the day to day experiences of employees at work and turn them into learning situations. As such we hope it will be helpful and serve to perpetuate the intent of the Department of Education's Workplace Literacy initiative.

Vera Godley

Cambodian MAA

Introduction

The program developed at Altron Inc. is a combination of ideas from three groups - managers (including line supervisors), the students, and the teacher/curriculum developer. This guide describes the participatory process used to design, set-up, and run the "English For The Workplace Program" at Altron. In this program, the students were not the *only* learners, the teacher didn't have *all* the answers, and the managers didn't make *all* the decisions. All were learners, teachers, researchers, and decision makers.

The teacher's narrative explains the process of gathering information. It demonstrates the importance of thorough research, the need to adapt, rethink, and apply relevant information. Above all it demonstrates the importance of teaching in context. The reinforcement to classroom learning that students receive on the workfloor is an important part of the program. The narrative also shows ways in which the teacher uses information from students and management in goal setting, classroom content, and evaluation procedures.

Contents

Chapter 1............Setting up the Program

Chapter 2............From Issues to Lessons

Chapter 3............Technical Training

Chapter 4............Evaluation

Appendix A...........Assessment, Needs Surveys, Guidelines

Appendix B...........Work Sheets for Codes

Appendix C...........Work Sheets for Technical Training

Bibliography

Resources for Workplace Literacy

Chapter 1

Setting Up the Program

A Participatory Workplace Literacy Program

The setting up of the workplace literacy program at Altron involved a great deal of time spent at the company by the teacher; in order to observe how the company worked, its needs, products, language, culture, and employees. These observations were an important part of the process of designing a program which was tailor-made to the company. It was the company's cooperation and commitment which enabled the teacher to set up and design a program which was relevant to its needs. This collaboration between the teacher and the company was a key factor in the successful implementation of the workplace literacy program.

The following steps were used to set up the workplace literacy program:

I. Establishment of a successful collaboration
II. Assessment of company needs
III. Schedule of classes, reimbursement of workers
IV. Recruitment of students
V. Selection of students
VI. Evaluation of students' strengths, needs, and goals
VII. Organization of the classroom
VIII. Determination of the teacher's goals

I. Establishment of a Successful Collaboration

In order to work with the managers I met at the company, it was necessary to **learn a new language and culture.** I was accustomed to defining education in terms of empowering learners and developing human potential. Initially the company wanted to hear how offering English for the workplace would increase worker productivity and improve product quality. Altron was looking for a program to increase company profits. I was not used to measuring a program's success in terms of dollars saved. Reducing scrap and lowering employee turnover had never been concerns of mine before.

Instead of education, I spoke of **English as a Second Language (ESL) as training.** It was important that the company saw this as a training opportunity like several others it offered, not as something unrelated to the job. Training occurs during the work day. Training is company sponsored. Those selected for training programs are considered top workers. Those who finish a training course receive a diploma and recognition.

Not only was it necessary to speak of the benefits of the course in business terms in meetings with managers, but I also needed to use the **vocabulary specific to the printed circuit board industry** and to Altron. I made notes on the terminology used and tried to incorporate it in my presentations to managers.

Meetings with managers were always kept short. There was a typed agenda (Appendix A, Presentation to Management), and I tried to accommodate Altron's schedule by planning meetings at a time that was good for the company.

The success of a program is influenced by the support the company gives the teacher. I was given an employee badge so that I had unlimited access to the plant during any shift. I was given tour after tour of the plant and explanation after explanation of steps in the production process. I needed to see where my students worked to understand their jobs and their concerns. I was sometimes embarrassed when I needed to ask again and again for directions to a department or the list of steps in a job. No one ever refused to help me learn or laughed at my efforts to understand a technical process. I was given my own lab coat and head cover for visits to clean rooms. Not only could I go anywhere and ask questions of anyone in the company, but I could also photograph every machine, worker, and product. These photographs were later used in class for discussions and lessons. They were also included in the manuals students wrote about their jobs.

An effective program depends on the company's willingness to provide information to the teacher. The company shared with me its intimate workings - how workers and supervisors handled stress at month-end when someone botched some boards, when someone quit and other workers had to cover, and when a tragic car accident killed a young supervisor and the whole company came to a slowdown as it mourned his death.

The teacher's physical accessibility to students, managers, and co-workers is important. I was given a desk in an area close to the cafeteria where I was accessible to students having questions, engineers offering suggestions, and maintenance workers making observations. This constant interest in the program and input of problems people were having because of misunderstood directions gave daily impetus and ideas for codes and learning activities. Beside my desk, there was a bulletin board. On it were samples of student writings, technical training work sheets, current articles of interest about the countries the students were from, and an occasional article about literacy.

II. Assessment of Company Needs

Important steps in conducting an initial needs assessment include:

* Establishing a good working relationship with the company's liaison to the program.
* Designing a questionnaire (Appendix A, Workplace Literacy Needs Survey).
* Meeting with managers to
    a. listen to their issues with language minority workers.
    b. explain the program.
    c. enlist their support in recruiting students and keeping them in the program.
* Preparing a report on the findings.

It took me several weeks to learn the company's goals. Crucial in this process was **establishing a good working relationship with the company's Manager of Employment and Training.** From the beginning, the Manager was the program's main proponent and my chief informant. In my meetings with him, I learned about the products manufactured at Altron and the organization of the company. He offered his insights into the culture of the management at Altron and advised on effective ways to set up meetings with key personnel who would be interested in the curriculum.

Close cooperation facilitated the setting of company goals for the program. For example, we held two **meetings to inform the supervisory personnel** about the program and to gather their observations and concerns about working with linguistic minority workers. The first meeting was with supervisors and department managers. The second meeting involved group leaders. Group leaders dress like workers, wearing jeans and informal shirts, never ties. In the presence of a group of formally dressed managers, group leaders would be less likely to voice their ideas. Thus we met separately.

Questionnaires to management provided effective tools for determining teaching content. The Needs Assessment Survey was given to the managers of each department by the Manager of Employment and Training a week before the meetings. The managers were to fill out the questionnaires and return them to the Manager of Employment and Training. Altron wanted to know how many linguistic minority workers were employed. I wanted to know more precisely what communication problems different departments were having.

Follow up meetings provided more in depth information to determine the program goals. At each meeting, the Manager of Employment and Training took the time to introduce me and explain the nature of the workplace literacy grant. I distributed the filled-out questionnaires and we discussed each question. I taped the meetings so that I could listen and ask questions without having to take notes. The spoken responses were much more revealing than the written ones.

From the managers and supervisors, I heard about high scrap rates due to worker error, high employee turnover, and difficulty in cross-training workers.

From group leaders I learned about cultural differences, about time lost because of the need to demonstrate a new procedure instead of giving instructions verbally, about the daily problem of checking and re-checking work because workers often didn't speak up when they didn't understand instructions. For example:

One group leader: *If he waits too long to answer "Yes" when I ask him if he understands. I go back and check his work right away. I know he didn't really understand.*

A group leader in a mechanical assembly department: *I have to explain over and over, using my hands and simple language. I'm so tired at the end of the day.*

Teacher: *You spend a lot of your time repeating yourself.*

Group leader: *Yes. It's really hard work. One mistake and we can ruin a whole shipment.*

Teacher: *That's a real problem.*

Supervisors also told me about their concerns for the individual workers: they wanted workers to have better communication skills so that they could be promoted and develop their potential. They wanted to keep valued workers by offering them higher pay and increased responsibility.

The survey questionnaires provided information on priorities for setting program goals. From the management needs assessment it was clear that the supervisors' immediate concerns were with the need for workers to understand instructions on the job, to be able to fill out forms, read batch cards, understand safety signs, and speak up when they had a problem. The long term goals of supervisors and management were reducing scrap and increasing company productivity and profits.

I prepared a **report for management** based on the data in the questionnaires and the discussions with the managers. The company's decision to invest in workplace literacy was validated by statistics which showed 40% of the employees as linguistic minorities; some departments entirely Portuguese and others with many Cambodian and Spanish speaking employees.

The written report, **Needs Assessment Survey Results** (Appendix A), made it clearer for all levels of management to see that there were common problems throughout the company with linguistic minorities. **The results provided a justification for the program in the eyes of management and stimulated management involvement.**

III. Schedule of Classes, Reimbursment of Workers

Some options for scheduling choices and payment of workers are:

- Classes can be held daily for one hour a day - during work, before or after - an inefficient use of teacher hours.
- Employees can take two hours out of work two days a week - difficult if several employees are from one work area.
- All class time can be outside work hours - inconvenient for car pooling and child care.
- A compromise of one hour work time and one hour employee time can be made.
- Employees can be reimbursed for all, some, or none of the class time.

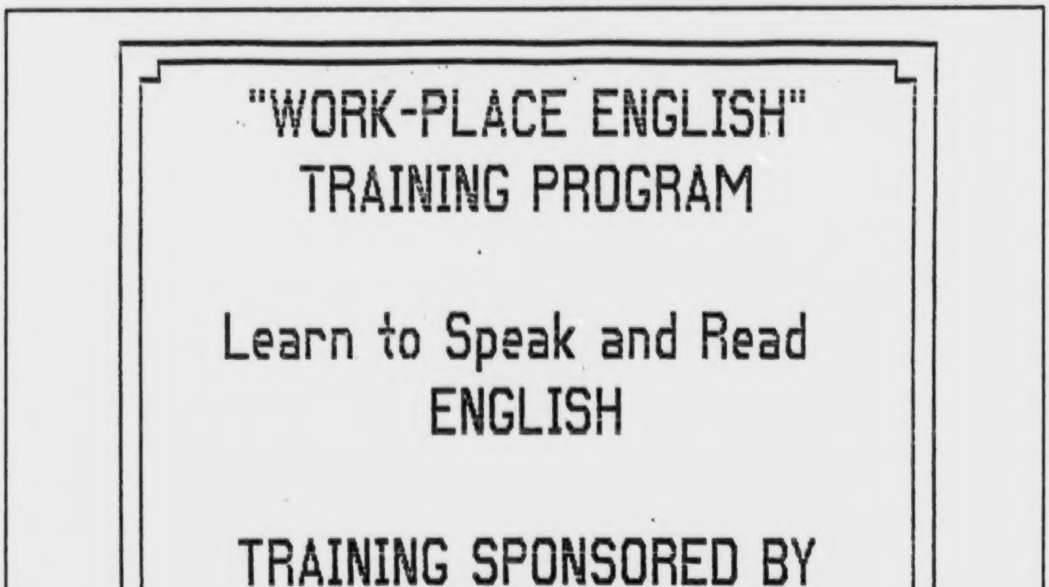
Altron's Plan

Since this partnership, funded by the Department of Education, specified that the company would reimburse workers for all their time in class, four hours per week, Altron's management decided to schedule the classes so that the first and second shifts would attend together from 2:30 PM to 4:30 PM, twice a week. Thus both shifts spent one hour of their work day in class and one hour of their own time. The two hours of company time spent in class were paid each week as part of each student's regular pay. The two hours of personal time were paid at the end of the six-month course. Along with a certificate of completion, each employee who completed the course received a check for the remaining unpaid hours spent in class. This reimbursement of extra hours spent in class reinforced the notion of the program as company sponsored training rather than an ESL class.

BEST COPY AVAILABLE

IV. Recruitment

As soon as scheduling choices were made, the classes were advertised by a notice on the cafeteria bulletin board. Notices were done in English, Cambodian, Portuguese, and Spanish:



"WORK-PLACE ENGLISH"
TRAINING PROGRAM

Learn to Speak and Read
ENGLISH

TRAINING SPONSORED BY
ALTRON INCORPORATED
and
CLASSES HELD AT ALTRON
for more info,see Personnel
or your Supervisor

Classes start Nov.15th

Notice in Khmer: Cambodian Language

ការ *ហ្វឹកហ្វឺនផ្នែកភាសារអង់គ្លេ*
នៅកន្លែងធ្វើការ

រៀនអំពីការនិយាយ និង ការអាន
ផ្នែកភាសាអង់គ្លេ
ក្នុងផ្នែកការហ្វឹកហ្វឺននេះ បានឧបត្ថម្ភដោយ
ALTRON
ផ្នែកការបង្រៀននេះបានធ្វើឡើងនៅក្នុង
ALTRON
ប្រសិនលោកអ្នកមានការងឿងឆ្ងល់អ្វី លោកអ្នក
អាចសាកសួរ Supervisor របស់លោកអ្នក ឬ
ក៏អាចទៅសាកសួរនៅកន្លែង Personnel ក៏បាន

ថ្នាក់ចាប់ផ្ដើមបង្រៀននៅខែ
វិច្ឆិការ ទី១៨
ខាងមុខនេះហើយ

Notice in Portuguese

Ingles em area de trabalho

Programa de ensino

Aprenda a falar e a ler em Ingles

Ensinos pagos por

Altron Incorporated

As classes serao dadas no Altron

Para mais informacoes, contactor o

departmento de Perroal ou o seu supervisor

Along with the notices were sign up sheets with the guidelines for the program (Appendix A, Training Program Guidelines).

V. Selection of Students

The following criteria established by management and teacher collaboration were used for selecting students:

- Company loyalty (employees with the longest stay at the company were given priority)
- Supervisor's recommendations on employee initiative and chances of advancement
- Supervisor's assessment of English ability
- ESL teacher's assessment of verbal and literacy skills

VI. Evaluation of Students' Strengths, Needs, and Goals

The pre-test was designed to rate English ability in the workplace context and was conducted as an interview. Using the company criteria for selection twenty students were eligible to be tested, fifteen would be accepted into the class. Now it was time to meet the students. I scheduled thirty minute interviews with each one to conduct the pre-test. This was the first experience of taking workers off the floor for ESL. It was important to check with the supervisors to arrange the most convenient time to leave the job.

The pre-test was designed to measure:

1. how easily each prospective student could answer questions often asked at work among co-workers.
2. how willingly they asked questions when they did not understand.

3. if they could give culturally appropriate responses in situations at work.
4. when it was difficult to use English at work and when it was not.

Each interview was taped so that eye contact was easier. The test was designed as an interview and I wanted to put the student at ease. The final selection of students was made from those least able to communicate information about their job and least able to ask questions when they didn't understand. The pre-test tapes were also used to help formulate student goals for the program.

As a pre-test for the first cycle I used a standardized numerical test with very general workplace questions. The test was not specific to the workplace at the company. Thus it was **an ineffective measurement** of the students' ability to communicate ideas on the job and their understanding of the company's workplace culture. The test language was too difficult and the numerical test scores had little meaning. Numbers do not measure fluency and communicative ability.

It is important to have a test specific to the company. For the second cycle the test was adapted and topics added that made it company specific. Adaptation, re-thinking, and placing in context are equally important for testing and for lesson content. As a test measurement student language was recorded to be compared with the language used in the post-test to note improvements. In the test - fluency, vocabulary, evidence of familiarity with work culture, and knowledge of company terminology were recorded.

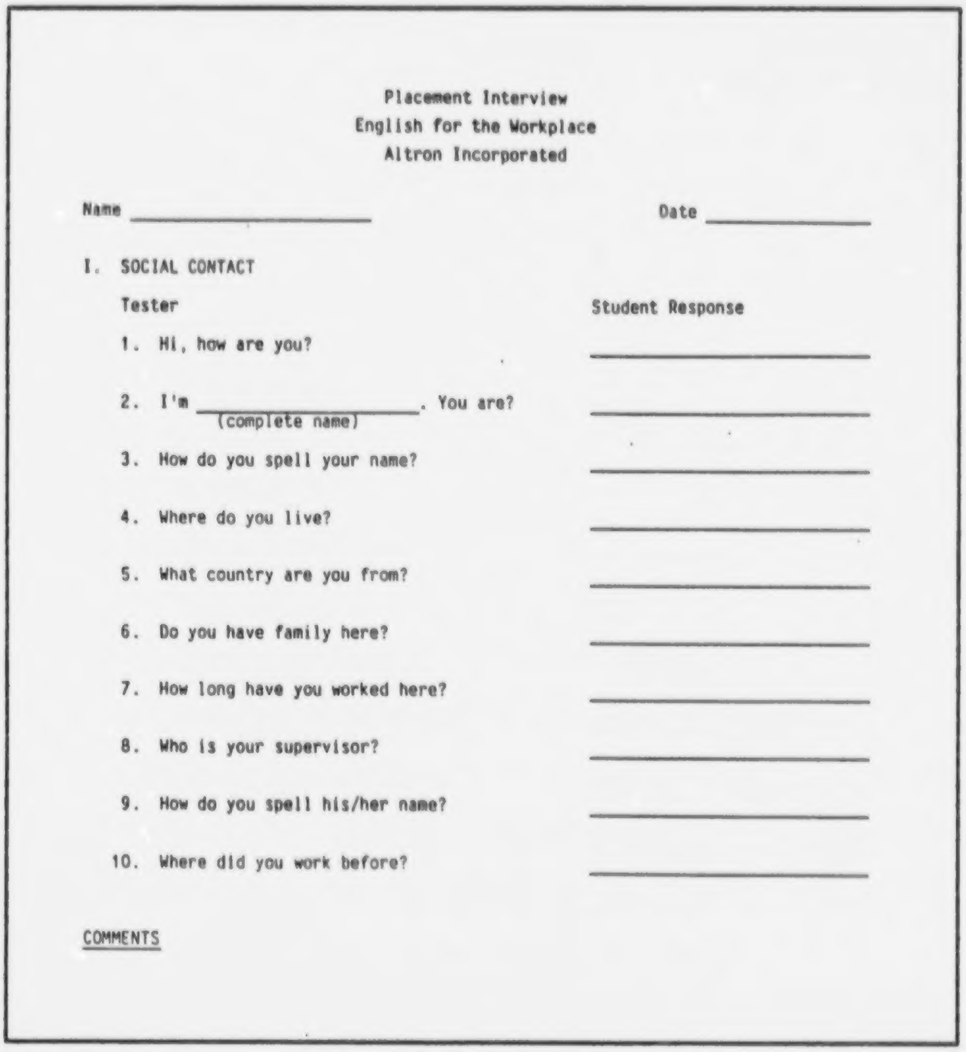
As a test specific to the company it enabled the teacher to determine:

1. Ability to make social contact in English
2. Knowledge of company terminology and the student's role in the production process
3. Ability to communicate with co-workers and supervisors
4. Student goals
5. Literacy level of the student

Section I

Student Pre-test: Designed for Company Employees in the Form of an Interview

This section tests ability to make social contact, talk to American workers, approach supervisors, and respond to conversation openers.



Placement Interview
English for the Workplace
Altron Incorporated

Name ____________________ Date ______________

I. SOCIAL CONTACT

Tester	Student Response
1. Hi, how are you?	____________________
2. I'm ____________________ (complete name). You are?	____________________
3. How do you spell your name?	____________________
4. Where do you live?	____________________
5. What country are you from?	____________________
6. Do you have family here?	____________________
7. How long have you worked here?	____________________
8. Who is your supervisor?	____________________
9. How do you spell his/her name?	____________________
10. Where did you work before?	____________________

COMMENTS

Section II

Pre-test: Placement Interview Recorded on a Grid

This section tests student knowledge of terminology at work and knowledge of their role in the production process. It also tests ability to train new workers to do their jobs and tests knowledge of quality considerations and safety precautions. I wrote the oral answers on the grid while the students replied to questions.

Could you tell me about your job?	2. What is your job called?	3. What do you do everyday?	4. What do you do first?
. What is this department?			6. What division are you in? Altron has 3 divisions: MLD, IPD and QTD
7. Who is the supervisor?			8. Where do the boards go after your department?
9. Where are the boards before your department?	10. What quality problems do you need to be careful of?	11. What safety rules are there?	12. What time are the breaks? What time is lunch?

Section III

Pre-test: Concerning Workplace Situations

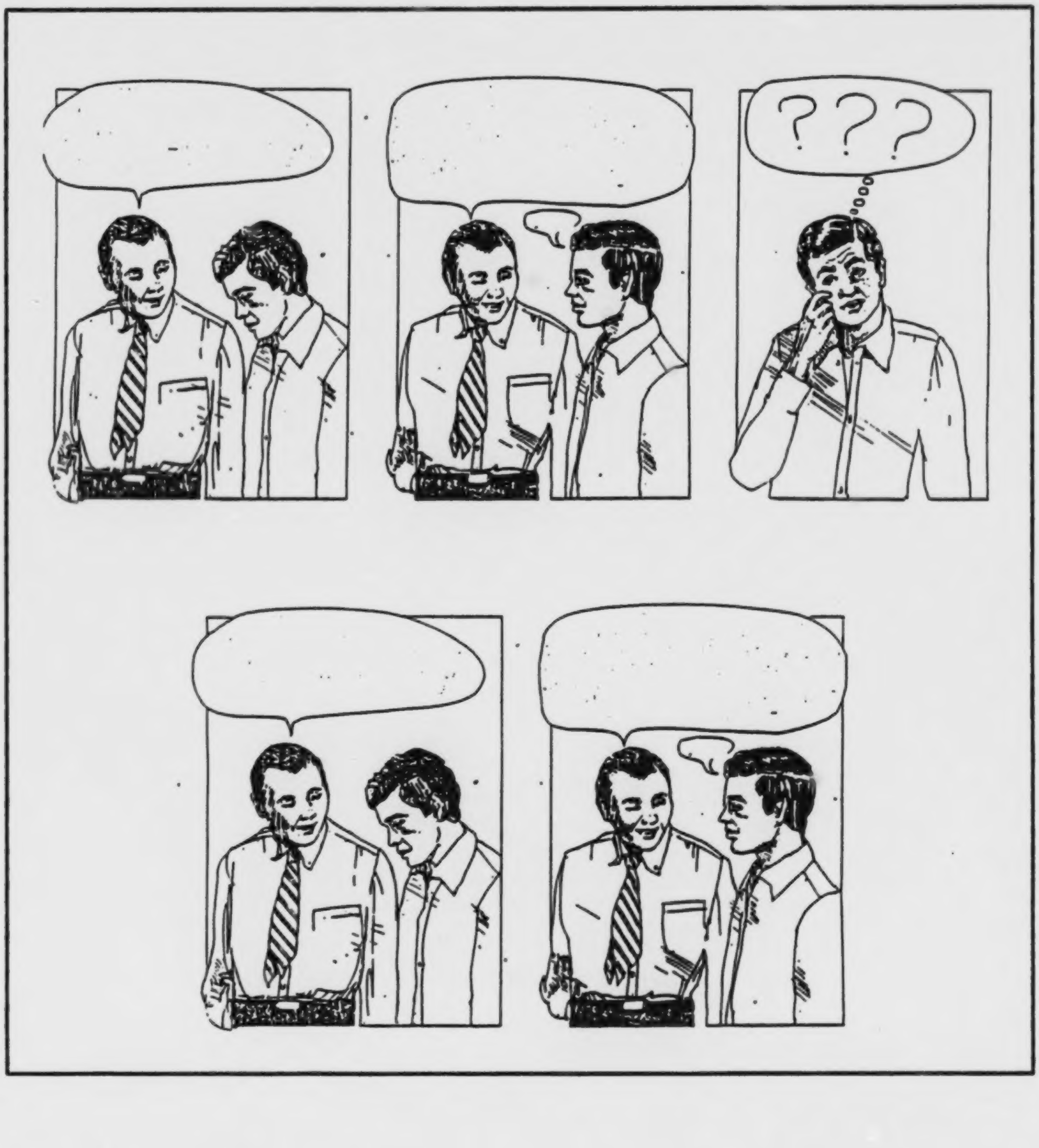
This section concerns workplace situations, many of them involving dealing with a supervisor. I described the setting, assumed the role of the other speaker, and initiated the conversation. I derived the test situations from actual incidents related by students during the first cycle of classes. For two questions I used picture cues taken from ESL for Action (Auerbach and Wallerstein, 1987, p. 46). It is important to use pictures of both men and women at work during the interview so that there is more identification.

Placement Interview

III ON-THE-JOB COMMUNICATION

Tester	Student
1. You're late!	____________________
2. Where were you yesterday?	____________________
3. It's the end of the quarter. I want you to work overtime today and tomorrow.	____________________
4. Ask permission to take a day off.	____________________
5. A co-worker comes back after being away from work for 3 days. What do you say?	____________________
6. Ask permission to leave early.	____________________
7. His boss asks him to do a job. He understands. What does he say?	____________________
8. His boss asks him to do a job. He doesn't understand. What does he say?	____________________

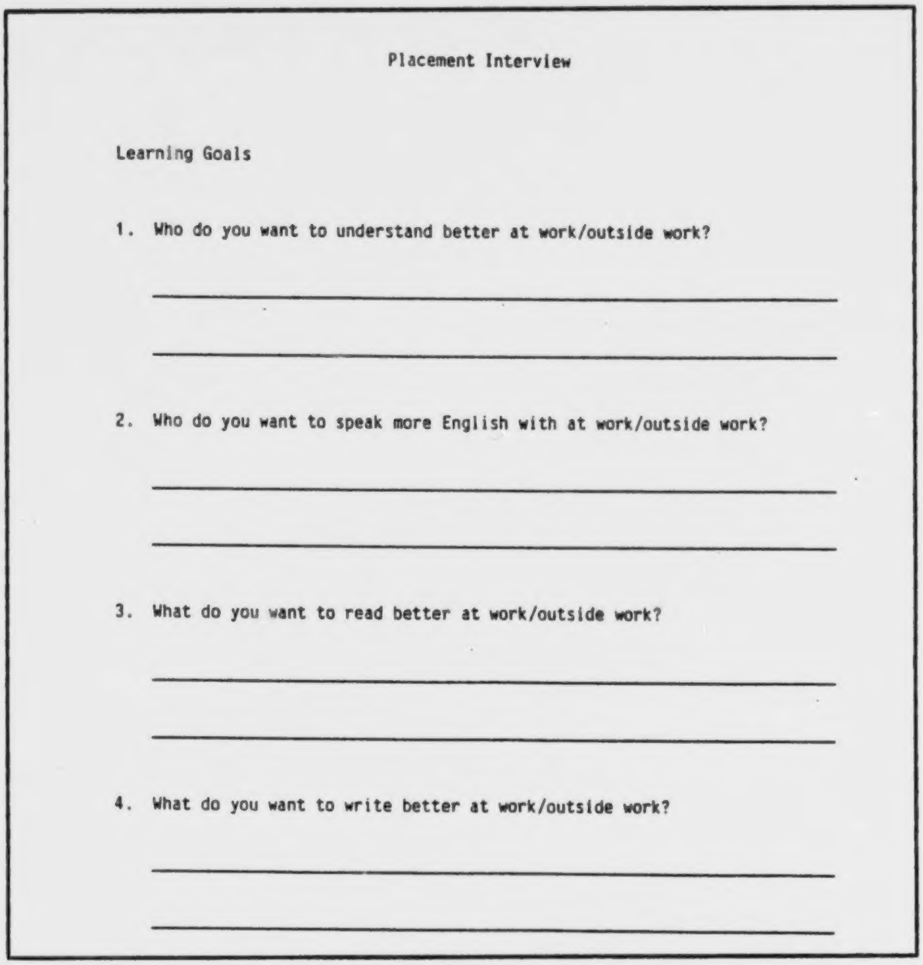
Pre-Test: Picture Cues from ESL for Action (p. 46)



Section IV

Pre-test: Learning Goals

This section helped determine student learning goals. Students were questioned about who they wanted to talk to more easily in English, and what they wanted to read and write more effectively both at work and outside work. Some information was gathered from this section but responses were not very specific. It needed to be followed up with other goal setting activities in class discussions, in dialogue journals, and in bi-weekly assessments.



Placement Interview

Learning Goals

1. Who do you want to understand better at work/outside work?

___

___

2. Who do you want to speak more English with at work/outside work?

___

___

3. What do you want to read better at work/outside work?

___

___

4. What do you want to write better at work/outside work?

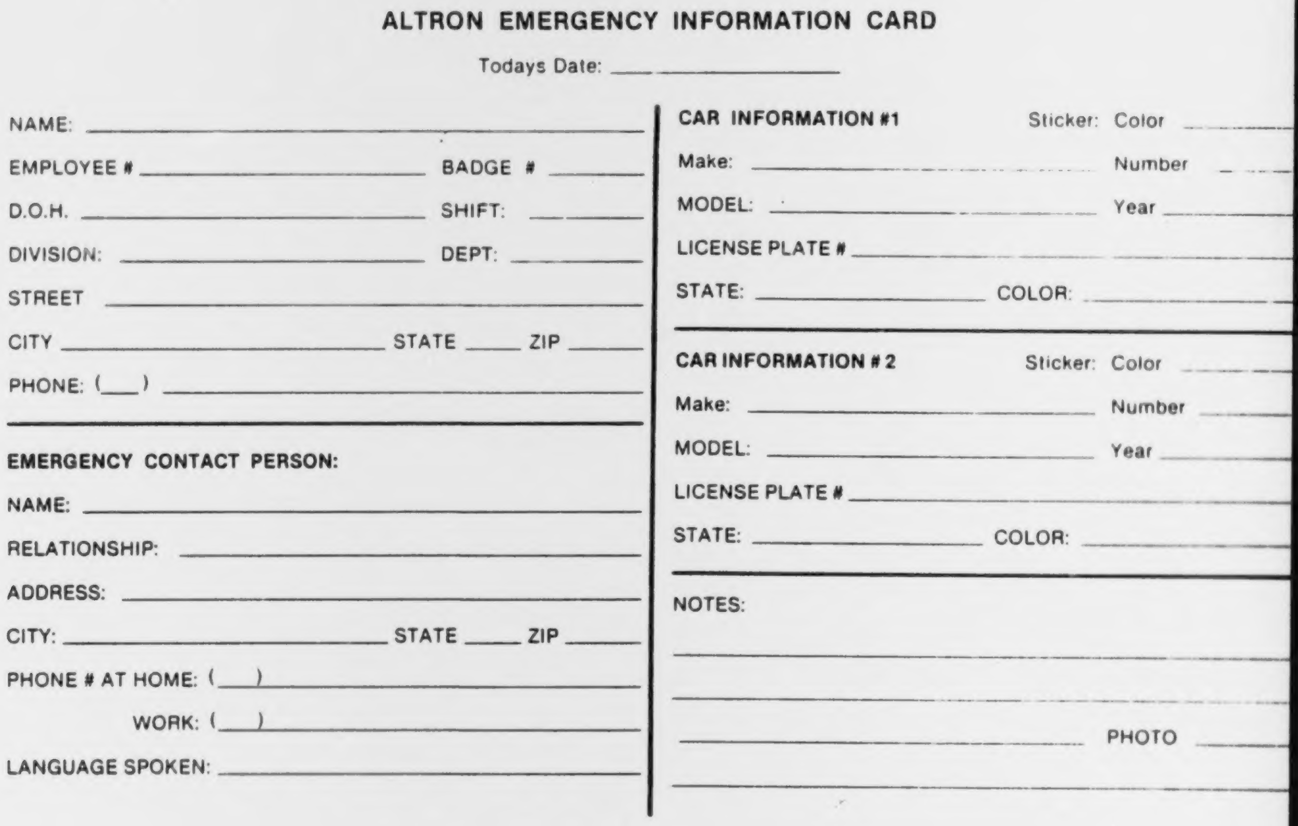
___

___

Section V

Pre-test: Literacy Measurement

The last section is a measure of literacy. The students filled out a standard company form.



ALTRON EMERGENCY INFORMATION CARD

Todays Date: ____________

NAME: ____________
EMPLOYEE # ____________ BADGE # ______
D.O.H. ____________ SHIFT: ______
DIVISION: ____________ DEPT: ______
STREET ____________
CITY ____________ STATE ____ ZIP ______
PHONE: (___) ____________

EMERGENCY CONTACT PERSON:
NAME: ____________
RELATIONSHIP: ____________
ADDRESS: ____________
CITY: ____________ STATE ____ ZIP ______
PHONE # AT HOME: (___) ____________
WORK: (___) ____________
LANGUAGE SPOKEN: ____________

CAR INFORMATION #1 Sticker: Color ______
Make: ____________ Number ______
MODEL: ____________ Year ______
LICENSE PLATE # ____________
STATE: ____________ COLOR: ______

CAR INFORMATION # 2 Sticker: Color ______
Make: ____________ Number ______
MODEL: ____________ Year ______
LICENSE PLATE # ____________
STATE: ____________ COLOR: ______

NOTES:
____
____
____________ PHOTO ______
____

VII. Organization of the Classroom

Each student was given a notebook to use as a dialogue journal and as a place to write during class. I also purchased a portable file crate and a hanging folder for each student. This was where work sheets were kept so that the students could keep a record of all their work. After class, the file crate was stored in a private corner in the personnel records office.

Attendance was kept in a standard class record book and a notation was made if students came for just one hour. I took attendance quietly, never commenting except to greet students warmly and express concern for family obligations if they were unable to attend. The students also signed a book when they came to class. At the end of the cycle, I had a record of all the hours they had attended.

VIII. Determination of the Teacher's Goals

Through the participatory method I envisioned a learning environment in which the students would not be forced to follow a ready-made curriculum. I envisioned the students validating their own experiences by writing their own stories, their own books about work. I envisioned the students using English as a tool to insist on their rights, as well as to learn quality control procedures and the names of tools. I envisioned the students not only asking questions in order to understand a task, but also offering suggestions on improving productivity. I envisioned the students learning English not only to do their job more efficiently, but to have the confidence and ability to learn another job, if they wanted. I envisioned the students discussing work issues revolving around cultural differences, and thereby validating their own diverse backgrounds.

My aim as an ESL teacher is to facilitate a learning environment in which all participate, all ask questions of each other, and all respect each other's work, customs, aspirations, and level of English.

Chapter 2

From Issues to Lessons

Learning is Student Centered and Participatory

The company needs assessment, the student pre-test, and teacher observation had identified major goals of the program as strengthening interpersonal skills, critical thinking skills, and communication skills. In order to focus on these goals learning activities were based on issues brought to the class by the students and identified by management. This participatory approach, centered on student and company issues, is used by Auerbach and Wallerstein in ESL for Action (1987).

Problem Posing Methodology

The teacher uses the problem posing method in the classroom. The steps for this method are outlined in ESL for Action (p. 59). Learning activities are based on problem situations identified by students and management. The teacher listens for issues, designs a code, and then follows the sequence of:

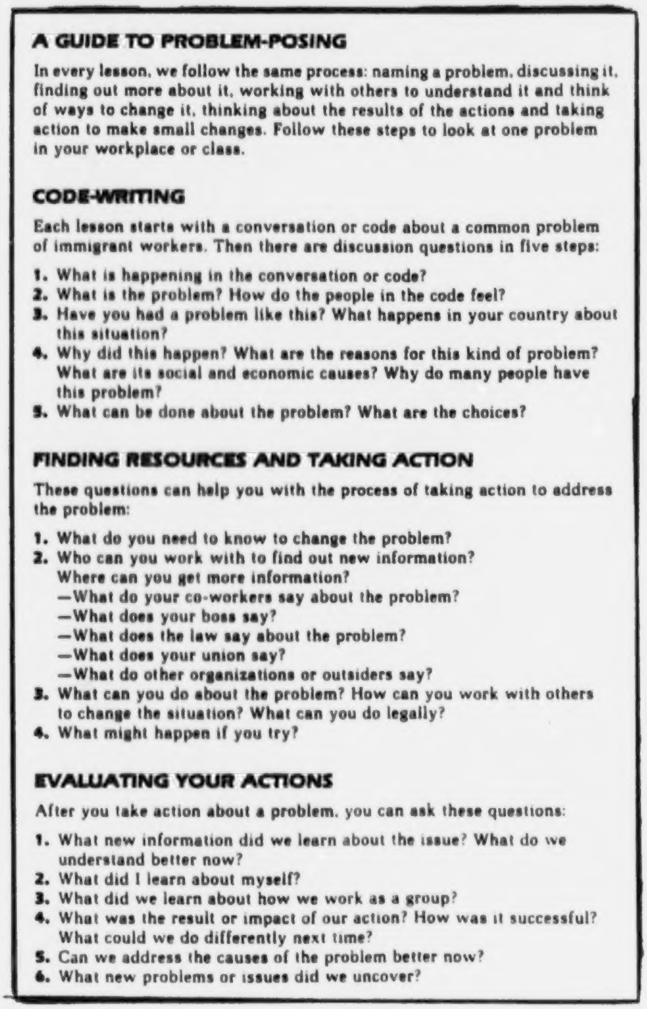
* asking questions

* listening for explanations

* practicing new structures in a drill

* practicing competencies

Steps in the Problem Posing Method: Reprinted from ESL for Action, (p. 59)



A GUIDE TO PROBLEM-POSING

In every lesson, we follow the same process: naming a problem, discussing it, finding out more about it, working with others to understand it and think of ways to change it, thinking about the results of the actions and taking action to make small changes. Follow these steps to look at one problem in your workplace or class.

CODE-WRITING

Each lesson starts with a conversation or code about a common problem of immigrant workers. Then there are discussion questions in five steps:

1. What is happening in the conversation or code?
2. What is the problem? How do the people in the code feel?
3. Have you had a problem like this? What happens in your country about this situation?
4. Why did this happen? What are the reasons for this kind of problem? What are its social and economic causes? Why do many people have this problem?
5. What can be done about the problem? What are the choices?

FINDING RESOURCES AND TAKING ACTION

These questions can help you with the process of taking action to address the problem:

1. What do you need to know to change the problem?
2. Who can you work with to find out new information? Where can you get more information?
   - —What do your co-workers say about the problem?
   - —What does your boss say?
   - —What does the law say about the problem?
   - —What does your union say?
   - —What do other organizations or outsiders say?
3. What can you do about the problem? How can you work with others to change the situation? What can you do legally?
4. What might happen if you try?

EVALUATING YOUR ACTIONS

After you take action about a problem, you can ask these questions:

1. What new information did we learn about the issue? What do we understand better now?
2. What did I learn about myself?
3. What did we learn about how we work as a group?
4. What was the result or impact of our action? How was it successful? What could we do differently next time?
5. Can we address the causes of the problem better now?
6. What new problems or issues did we uncover?

Lessons are based on issues from the students' lives because only they know their own reality and it is in naming this reality, discussing it, and determining what they want to change about it, that they gain confidence to practice the skills to create a new life in American culture.

Wallerstein in Language and Culture in Conflict (1983, pp. 17-25) has identified steps in the problem posing method as:

1. listening for issues
2. codifying the issues
3. asking a series of questions that "directs students to name the problem, understand how it applies to them, determine the causes of the problem, generalize to others, and finally, suggest alternatives or solutions to the problem" (Wallerstein, 1983, p. 17).

Designing a Code

Listening for Issues from Supervisors

The following narrative is an account of the development of a code from a discussion with a supervisor. It demonstrates how issues in the workplace are developed into a code for classroom lessons.

One day, during an informal check-in with a second shift supervisor, I mentioned one of my frustrations with teaching. Some of my students had pulled away from writing a class newspaper after initially expressing enthusiasm for the project. I was not having much luck at finding out why the students had changed their minds so abruptly. The supervisor looked at me, paused and then said, *"Well, Cindy, they showed me the sample newspaper you had given them, and they said it was too simple, too babyish."* I replied that I had not meant it to be a model, just an example of what one program had done. Then I looked at him and said, *"I wonder why they didn't tell me."* He smiled and told me how long it had taken him to learn to *"read"* the Cambodian workers on his floor.

His workers never tell him directly, *"Bob, I don't want to work at this job tonight; I'd like another assignment,"* or *"You really came down on me for goofing up these boards."* Bob knows his Cambodian workers are displeased when they leave immediately at the end of the shift: usually they stay for overtime. And when they leave, they leave without saying goodnight. He is left to wonder what he did to offend the worker, just as I had not been able to understand the sudden loss of interest in the newsletter.

The supervisor's comments became the subject for the code "The Worried Group Leader." To provide the distance students need to "objectify their reality," I changed "supervisor" to "group leader;" "Ed" to "Marina;" "men" workers to "women;" "Amp Assembly" to "Outer Layer Image;" and "Cambodian" to "Korean."

Work Sheet for the Code: The Worried Group Leader

THE WORRIED GROUP LEADER

One day Marina felt confused at work. She was a group leader in Outer Layer Image. She supervised several people from Korea. Usually everybody was happy at work, but today something was wrong. The Korean women were quiet. Nobody was smiling. Nobody wanted to work overtime that day.

1. Who is Marina?
   What department does she work in?
   What is her job?
   What country are her workers from?

2. What is the problem in Marina's department?
   How do the workers feel?
How does Marina feel?

3. Did you ever feel like someone was upset with you at work?
   When your co-workers are angry at their boss, how do they show it?
   How do you know your boss is upset with you?

4. Why do workers sometimes get upset with their boss?
   In your country, what does a worker do when he doesn't like his task? When his boss offends him? When his boss gives him too much to do?

5. In your opinion, what should Marina do?
   Should she say anything to her workers?
   What should the workers do if they are upset with their group leader?

BEST COPY AVAILABLE

Lessons from the Code

In building lessons around the code "The Worried Group Leader," I incorporated many opportunities for students to use and develop skills in the language:

1. Asking questions about Marina's choices and also about unfamiliar words and structures.
2. Listening to explanations (both mine and those of other students).
3. Practicing new structures in a drill.
4. Discussing our own experiences when disagreeing with a supervisor.
5. Practicing competencies.

Important uses of this code were to provide the students with an opportunity to think critically and to stimulate the sharing of ideas and opinions about cultural differences, workplace reality, and ways to get what one wants at work.

Asking Questions

I introduced the story and posed two questions for the students:

1. Why do you think the group leader is upset?
2. What are the group leader's choices?

Then the class was divided into two groups, one that could read and discuss a story independently and the other which worked best with the teacher as facilitator. First I gave copies to the intermediate students and asked them to read silently, think about the two questions, and then discuss the story with other group members. For awhile there was silence but soon students began to talk to each other when they realized they were on their own.

Listening for Explanations

With the beginners I read the story aloud. Next I gave each of them a copy and read the story aloud again while they followed the text. Then I asked comprehension questions. "Who was Marina?" "Was she happy or worried?" "What was her job?" The students responded quickly.

Practicing New Structures in a Drill

I then called both groups together. The students were asked to underline any words they didn't know and of which they couldn't guess the meaning. "Quiet" was a word two beginners asked about. I quickly wrote it on the board and said it while pointing to the word. Students knew the meaning; they had been perplexed by its orthography. I then wrote other common "qu-" combinations: "quiet," "quick," and "quit." The students who knew them read them aloud. Then we read them as a class. Everyone knew the workplace commands of "Be quiet," "Quick! Finish the work," and the final words, "I quit!"

Another word some students underlined was "felt." I wrote it on the board and asked if someone could read it and explain it. One student pronounced it and said it was the past tense of feel.

I wrote two questions on the board:

How do you feel now?

How did you feel last night?

We did a fast chain drill with the first question, stronger students modeling the question and responses first. Then they asked the beginner students the question.

We followed the same pattern with the drill for the question in the past tense - more fluent students first and beginners when they were ready to respond.

Both the explanation of "quiet" with the decoding practice and the drills with "felt" and "feel" took five minutes.

Students had determined the order in the lesson. Instead of the teacher's questions being first, their questions were first. The teacher had listened to the students' questions and adapted a drill that could benefit all students.

Discussing Experiences

Now we started the discussion about "The Worried Group Leader." Students asked the questions - I chose beginner students to answer the concrete questions, but then encouraged students to answer when they wanted to contribute.

One of the questions we spent time on was "How do you know your boss is upset with you?" The class listened intently as students described facial expressions, body language, and pitch of voice as indicators of anger in their boss. They had become adept at reading the signals.

Beginner students **role-played** situations imitating the body language of their bosses. Then a 30-year-old Cambodian group leader recounted the story of how he had quit a job when his supervisor shouted at him in front of other workers. Other students nodded; two mentioned that Americans are quick to show anger by raising their voices.

Class Discussions: Material for a New Code about Criticism, Anger, and Cultural Differences

Students listened to each other as they discussed how anger was handled in the workplace in their own country. This would be the foundation of another code about criticism in the workplace and cultural differences in the expression of anger (Appendix B, I Quit).

Practicing the Competencies

Codes such as "The Worried Group Leader" are useful not only for practicing reading, speaking, and listening skills, but also for helping students to identify language functions specific to the workplace: in this case, **reporting a problem**. To practice this competency I used lessons from ESL for Action (p. 49). Two students role-played the story. The whole class discussed the questions. Then the more advanced students paired with the beginners for the activity in which they decided when to report problems.

Model Code Reprinted from ESL for Action, p. 49.

Practicing Competencies: Reporting Problems

THINKING ACTIVITIES: Reporting problems

A. UNDERSTANDING PROBLEMS

Act out this story and add your own ending:

Mr. Smith: What happened to the windows in back? Only half of them are clean.

Rajan: I couldn't reach the top.

Mr. Smith: Why didn't you ask for a ladder?

Rajan: I'm sorry. I thought you would be angry.

Mr. Smith: Well, I am angry now. You should have asked.

Questions for discussion:

1. Why were some windows dirty? Why didn't Rajan clean them?
2. Why didn't he ask for a ladder? How did he feel?
3. How does Mr. Smith feel? What is he angry about?
4. Did you ever have a problem like this at work?
5. What did you do?
6. Did you ever get in trouble for reporting a problem? What happened?

B. REPORTING PROBLEMS

Here are some problems. Do you think you should tell your supervisor about them?

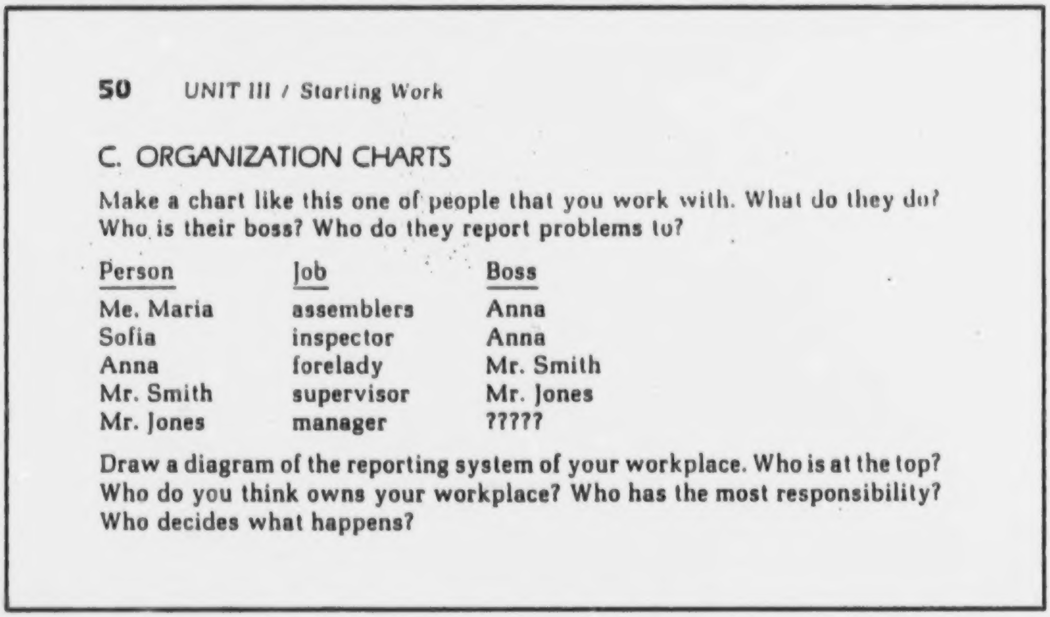
	yes	no	maybe/ sometimes
1. You run out of supplies.	___	___	___
2. You need to go to the doctor during work.	___	___	___
3. You feel sick.	___	___	___
4. You can't keep up with the work.	___	___	___
5. You don't understand part of the job.	___	___	___
6. You see another worker stealing.	___	___	___
7. You think your boss is treating you unfairly.	___	___	___
8. You broke your machine.	___	___	___
9. You think your paycheck is wrong.	___	___	___
10. You see another worker leaving early.	___	___	___
11. You make a mistake.	___	___	___
12. (Add your own.) ____________	___	___	___

Questions for discussion:

1. What will happen if you report each of these problems?
2. Will your supervisor be angry? Will other workers be angry?
3. Will you get in trouble? Will your supervisor be glad? Will your supervisor help you?
4. If you don't tell your boss, who should you tell: nobody, another worker, a union representative, or someone else?

Organization Charts for Practicing Competencies

The intermediate students made organization charts individually, while I worked with the beginners in a group with the same activity. This was done using ESL for Action (p.50).



50 *UNIT III / Starting Work*

C. ORGANIZATION CHARTS

Make a chart like this one of people that you work with. What do they do? Who is their boss? Who do they report problems to?

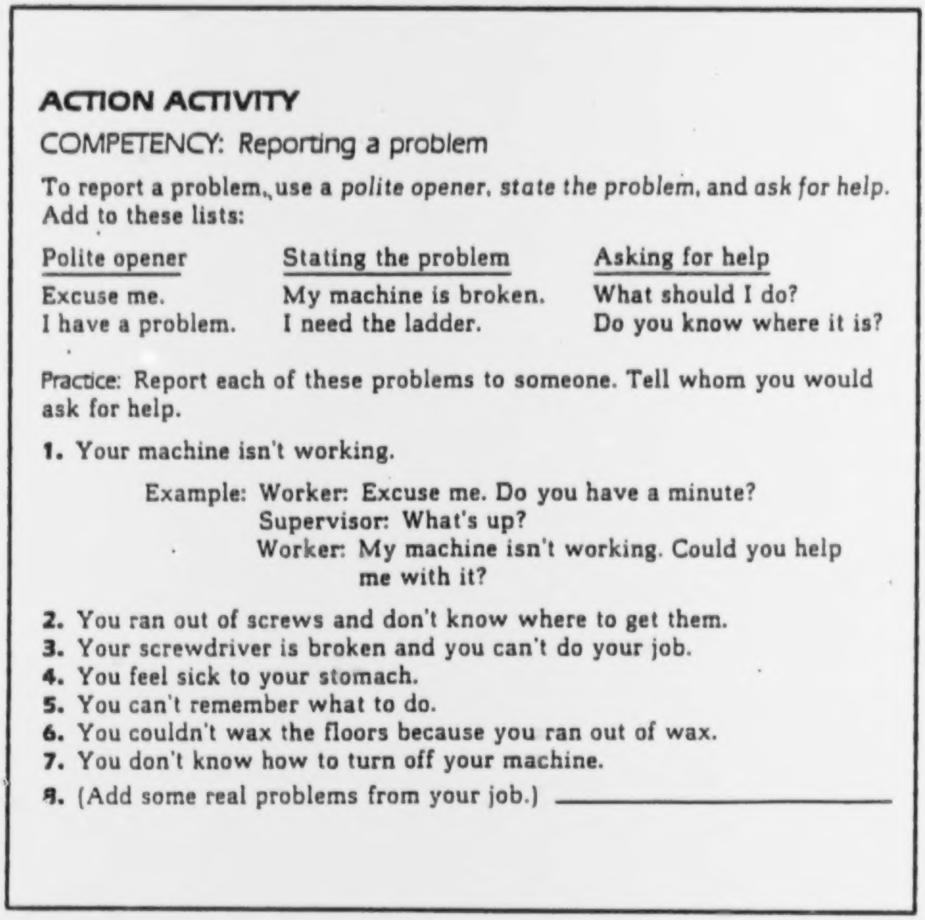
Person	Job	Boss
Me, Maria	assemblers	Anna
Sofia	inspector	Anna
Anna	forelady	Mr. Smith
Mr. Smith	supervisor	Mr. Jones
Mr. Jones	manager	?????

Draw a diagram of the reporting system of your workplace. Who is at the top? Who do you think owns your workplace? Who has the most responsibility? Who decides what happens?

Action Activity

Reporting a Problem

We practiced the competency *How to Report a Problem* in ESL for Action (p. 50). More advanced students modeled first. Then we made a class chart of problems each had experienced.



ACTION ACTIVITY

COMPETENCY: Reporting a problem

To report a problem, use a *polite opener*, *state the problem*, and *ask for help*. Add to these lists:

Polite opener	Stating the problem	Asking for help
Excuse me.	My machine is broken.	What should I do?
I have a problem.	I need the ladder.	Do you know where it is?

Practice: Report each of these problems to someone. Tell whom you would ask for help.

1. Your machine isn't working.

   Example: Worker: Excuse me. Do you have a minute?
   Supervisor: What's up?
   Worker: My machine isn't working. Could you help me with it?

2. You ran out of screws and don't know where to get them.
3. Your screwdriver is broken and you can't do your job.
4. You feel sick to your stomach.
5. You can't remember what to do.
6. You couldn't wax the floors because you ran out of wax.
7. You don't know how to turn off your machine.
8. (Add some real problems from your job.) ______________________

Designing a Code

Listening for Issues from Students

The following account of the development of a code from a student problem demonstrates the need for the teacher to both listen for issues and also keep a clear vision of the learning process. Students need to develop English skills so that they can make their own decisions and control their own lives, not rely on other people.

One day after a class on the topic of pay raises, a few students stayed after class. Among them was Eva; she was very upset about an encounter with her supervisor. As she started to tell us about it, tears welled in her eyes and she sobbed for several minutes.

Eva had found out that new workers in her department were starting at a higher hourly rate than the one she had started at a year ago. When the new workers' probation period was over and they received their next raise, their pay would be nearly equal to hers. Eva would be a skilled worker with a year's experience making the same pay as a trainee.

Eva had complained to her supervisor about the new starting wage and had asked for a raise. Eva's supervisor had refused, telling her he could only give her a raise at her yearly review. Eva had insisted; he had told her to talk to the Manager.

The Manager had informed Eva that pay raises could only be given after recommendations from supervisors.

Angered, Eva had staged a work slowdown, completing only two boards a night instead of her usual five. When her supervisor had criticized her output, she had retorted, *"Why I work hard if you not pay me the right money?"*

Eva didn't want to go upstairs to work that day. The other students comforted her. Meera advised, *"Don't pay attention to him when he gets mad at you. Just do your job."* Maria counseled Eva to work even harder so that he would realize what a valuable worker she was and then give her a raise.

The Teacher's Role

Now I had decisions to make about what role to take. As a fellow worker, I sympathized with Eva. As an ESL teacher, I wanted to offer Eva the opportunity to learn the English skills she needed to negotiate what she felt was a fair wage.

First, I asked Eva if I could write a code and we could discuss this issue in class so that everyone could give ideas and learn. She said no, she didn't want the situation to be brought before the whole class.

I asked Eva if she wanted to talk to the department manager. Eva said no, her supervisor would not like her to go over his head.

I suggested Eva talk again to the Manager. She refused. Finally I said I would write to her in her journal. Eva said okay and left for her job.

I didn't know what to do. Eva was a valued employee. The company needed her skills. Only two weeks before, her supervisor had offered her a promotion to group leader. She had refused. Eva's family responsibilities made extra work hours difficult and the added responsibility as group leader was a big commitment.

I decided to talk to the Manager. He told me that when Eva had come to talk to him, she had walked into his office, sat down, and simply said, *"I want a raise."* She had not given any reasons for the request. That's why he had explained to her about the company policy, that raises were given after a recommendation by a supervisor. I told him how upset Eva was, and that I didn't know how to be of any help. The Manager was glad to have the information and as head of personnel wanted to deal with it. He recommended that I need not worry about it any more.

However, late that evening, I decided to talk to one more person at the company. I spoke with a department head, one of the most sensitive managers I had worked with. I telephoned and told him of my concern that Eva might leave her job. He told me he knew about the situation. It was a difficult problem and cultural differences compounded the issue.

The next day, I researched pay practices in the industry. I interviewed an experienced group leader from a different division, who had earlier worked in the same area where Eva worked. He had worked for years, both as a worker and as a supervisor. He informed me that all companies have to hire at the going rate but do not make commensurate adjustments in the wages of other workers.

Reflections and Recommendations

Issues can include a number of problem posing concerns. What had appeared to be a problem with a worker not having the skills to negotiate a pay raise turned out to be a more complex situation. Learning how to ask for a raise was not the only answer. The situation demanded negotiation skills, which are difficult for an intermediate level ESL student. The worker needed to ask questions about company pay policy, to be able to discuss concerns with a supervisor, and to know how to take a complaint to the personnel department.

I had been unsure how to translate my concern for Eva into effective action. It was not my job to speak for Eva; it would brand me as a meddler in the company and not give Eva the skills to speak for herself. I had spoken to the Manager and to the second shift department manager only because I knew of their respect and concern for workers at the company.

My first choice of action, to use the issue as a code in class, was not what Eva wanted. It was important to ask her permission. It was also important to hear all sides of the issue, to know the company policy on salary, and to know who to ask when there is a question or complaint. It was necessary to know industry pay practices.

Situations such as this provide an important opportunity for the teacher to examine program goals and develop codes to target them. In this case the student was not sure that she wanted the issue discussed in the class. Issues cannot always be turned into codes immediately but can provide models for lessons at a later date.

Competencies to be practiced from the code at a later stage include:

* dealing with a difficult supervisor.
* taking a problem to the personnel manager.
* asking for a raise.
* understanding company policies.

The following work sheets were developed from the classroom incident concerning pay raises.

Work Sheet for the Code: Asking for a Pay Raise

ASKING FOR A PAY RAISE

Nadia just found out that new workers in her department were starting at a higher hourly rate than the one she had started at a year ago. When the new workers' probation period was over and they received their next raise, their pay would be nearly equal to hers. Nadia would be a skilled worker with a year's experience making the same pay as a new worker.

Nadia complained to her supervisor about the new starting wage and asked for a raise. Nadia's supervisor refused, telling her he could only give her a raise at her yearly review. Nadia insisted; he told her to talk to the Personnel Manager.

The Personnel Manager said to Nadia, *"Only your supervisor can give you a raise."*

Angry, Nadia staged a work slowdown, completing only half the work she usually did for the eight hour shift. When her supervisor criticized her output, she retorted, *"Why I work hard if you not pay me right money?"*

Work Sheet for the Code: Asking for a Pay Raise

Asking Questions/Listening for Explanations

ASKING FOR A PAY RAISE

1. How long has Nadia been working at this company?
   What did Nadia find out about pay in her company?
   Who did Nadia talk to first about her pay?
   What did he say to Nadia?
   Who did Nadia talk to next about her pay?
   What did he say?

2. What is Nadia's problem?
   How does she feel about her salary?

3. Did you ever have a problem like Nadia's?
   How are salaries and raises determined in your country?

4. Why is Nadia's pay nearly the same as a new worker's?
   Is this true in many companies?

5. What can Nadia do?
   What are her choices?

Work Sheet for the Code: Asking for a Pay Raise

Asking Questions/Listening for Explanations

THINKING ACTIVITIES

Who do you ask?

When I have a question about my pay, I talk to my

______________________________________ first.

If I disagree with him, I talk to

______________________________________ next.

Where is the best place to ask pay questions?

I ask my supervisor pay questions

__________1. in the cafeteria when he is having a cup of coffee.

__________2. at my work station.

__________3. in the hall, outside the department.

__________4. in a private office area.

When is the best time to talk to your supervisor about a pay problem?

__________1. at the beginning of a shift.

__________2. at the end of a shift.

__________3. when he is alone and not too busy.

__________4. on the last day of the quarter.

__________5. on break when he's having a cigarette and talking to another supervisor.

__________6. other.

Work Sheet for the Code: Asking for a Pay Raise

Discussing Experiences

Investigating pay policy in your company:

Ask two students in class about pay policies at the company where they now work and at other companies where they have worked.

Ask two Americans in another department about pay policies at the company where they work and at other companies.

Write three questions you have about pay. Make an appointment to talk to the Personnel Manager about these questions.

Work Sheet for the Code: Asking for a Pay Raise

Conversation and Comprehension Skills

Practicing competencies:

With a partner, write a conversation about a pay question. Remember these steps:

1. Get someone's attention.
2. State the question.
3. Make the request.

With a partner, write a conversation about a pay problem.

One supervisor gave these rules for the way an employee should talk to his supervisor. What do they mean?

1. Don't yell.
2. Don't swear.
3. Don't cry.
4. Don't threaten.
5. State the facts.
6. Have the supervisor justify his decision about your pay.

Work Sheet for the Code: Asking for a Pay Raise

Letter Writing Exercise to Practice Competency

Oct. 10, 1989

Dear Kathy,

May I have an appointment to talk with you about my insurance? I am in Q.C. Final, first shift

Thank you,

Luisa Afonso

10/10/89

Dear Paul,

May I have an appointment to talk with you about my pay rate? I work in Lamination, first shift.

Thank you,

Gustavo Restrepo

Work Sheet for the Code: Asking for a Pay Raise

Practicing Competencies for Negotiating a Pay Raise

A TALK WITH THE PERSONNEL MANAGER
ABOUT PAY RATE

1. Greetings:

You: ________________________________

John: ________________________________

2. Stating the Problem:

You: I'd like to talk about my pay rate.

John: Why are you asking about your pay rate?

You: My friend got a raise in three months. I had to wait 6 months.

John: Did you talk to your supervisor about this?

You: Yes, I did. She told me to talk to you.

John: Okay. Let's pull your file and check your records. Let's see. It says here you were hired at $6.30 an hour with a six-month review.

You: Why does my friend get a three-month review?

John: That depends on the supervisor and what she said at the time of hiring. I won't discuss anyone else's pay. If you want any change in your pay, you need to talk to her. After that, if you still have questions, talk to your manager.

Work Sheet (cont.)

3. Saying Goodbye:

You: Okay, John. Thanks for your time.

John: No problem. Any time.

Listening for Issues in the Classroom

Issues raised by students can be adapted, re-thought, and applied in the appropriate context of problem solving, participatory ESL. Problem solving can then have real meaning without being too personal to the students. Then the learning process of asking questions, listening for explanations, practicing new structures, discussing experiences, and practicing competencies can be applied.

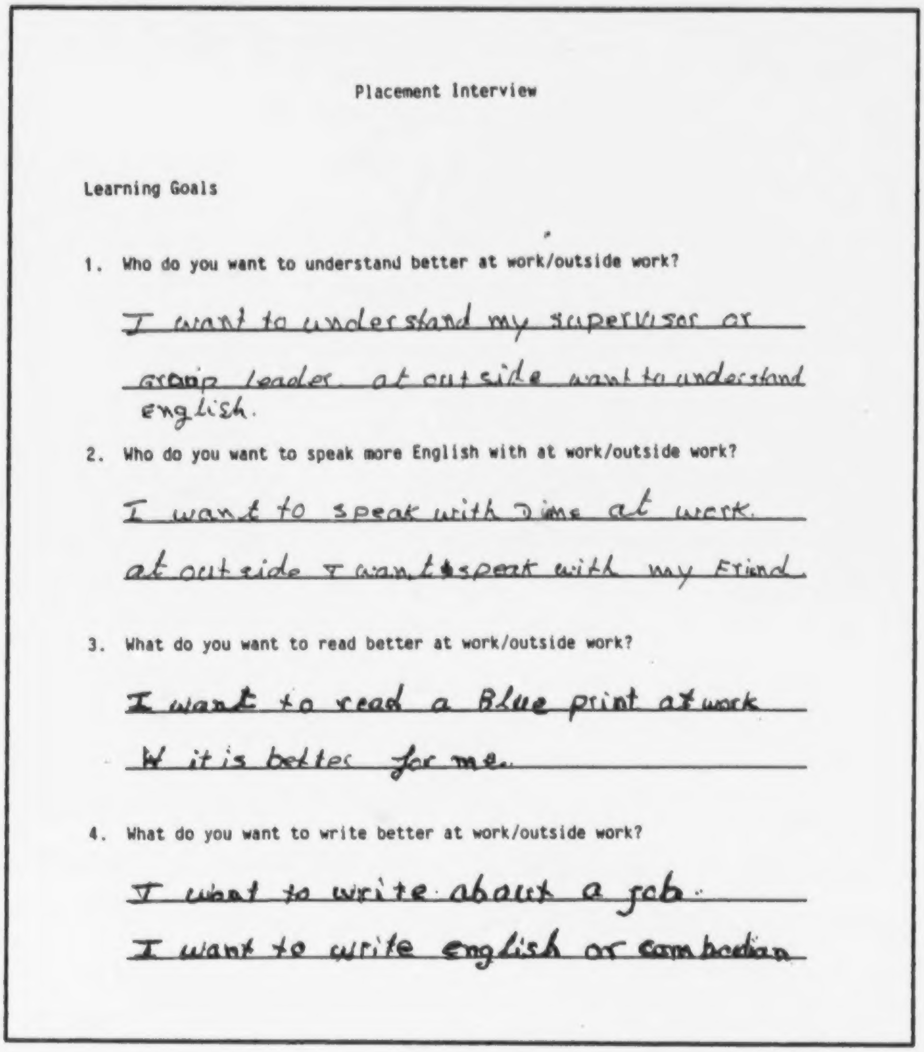
The key to problem solving in participatory ESL is the teacher's ability to take the issue, adapt, rethink, and apply it in a context that will prove meaningful without being too close to personal experience.

Then the lesson sequence of asking questions, listening for explanations, practicing new structures in a drill, and practicing new competencies needs to be applied to give structure and order to the lesson.

Other Ways to Listen for Issues from Students:

1. In the pre-test, given as individual interviews, students were asked, *"Who do you want to talk to more easily at work?" "Outside work?"*

A Sample from the Pre-test Placement Interview



Placement Interview

Learning Goals

1. Who do you want to understand better at work/outside work?

I want to understand my supervisor or
group leader. at outside want to understand
english.

2. Who do you want to speak more English with at work/outside work?

I want to speak with Jime at work.
at outside I want to speak with my Friend

3. What do you want to read better at work/outside work?

I want to read a Blue print at work
W it is better for me.

4. What do you want to write better at work/outside work?

I what to write about a job.
I want to write english or cambodian

Answers to these questions often revealed situations in which students felt frustrated by their lack of English.

2. **Classroom rituals were used that encouraged group sharing.** One that students enjoyed was the discussion in the first class of the week: "How was your weekend?" When I heard several students mentioning long overtime on Saturdays, the strain of managing home responsibilities, or the nice places to go fishing, I jotted those down for future lessons.

3. **English In and English Out Exercise**

I kept newsprint on the classroom wall with the headline:

Date ___________

ENGLISH IN

ENGLISH OUT

These posters served as a record of situations in which individuals used English that week. The activity united the group when students shared their problems and triumphs. They could also be used for reading exercises, critical thinking, and role-play suggestions.

Example of a Work Sheet for English In and English Out

Date______________

English In

Jose spoke to his department supervisor, Bob, in his yearly review.

Sophea asked his supervisor for parts.

Hoeun needed connectors and pins. He asked Ed.

Phoeung spoke to Danny when she needed a new job.

Maria spoke to Vinod. He showed her a new job.

Nadia spoke English to her group leader about Italian customs.

English Out

Nadia spoke English at the welfare office. She asked about Medicaid benefits.

Gustavo spoke English at several stores and restaurants. He was trying to find a job for his friend.

Ley spoke English at the police station when he reported a car accident.

Work Sheet for English In and English Out

Listening for Issues and Practicing Competencies

ENGLISH IN AND ENGLISH OUT

Who spoke English at the police station?

Who helped his friend find a job?

Where did Nadia go to ask questions with her Medicaid form?

Why did they go to the police station?

Why did Gustavo go with his friend?

Who gave Phoeung a new job?

OR

Write YES or NO

____Nadia talked to her group leader about a new job.

____Phoeung spoke to Vinod when she needed a new job.

____Hoeun needed capacitors and resistors. He spoke to Ed.

OR

Gustavo_______________English at several stores.

Ley_______________English at the police station.

Work Sheet for English In and English Out

Practicing Competencies

ENGLISH IN AND ENGLISH OUT

At the welfare office - Nadia needed to ask questions about the Medicaid she received for her son.

Nadia:

Caseworker:

Nadia:

Caseworker:

Nadia:

At A Restaurant - Your friend didn't speak much English. You were going to several stores and restaurants with him to help him find a job.

You:

Manager:

You:

Manager:

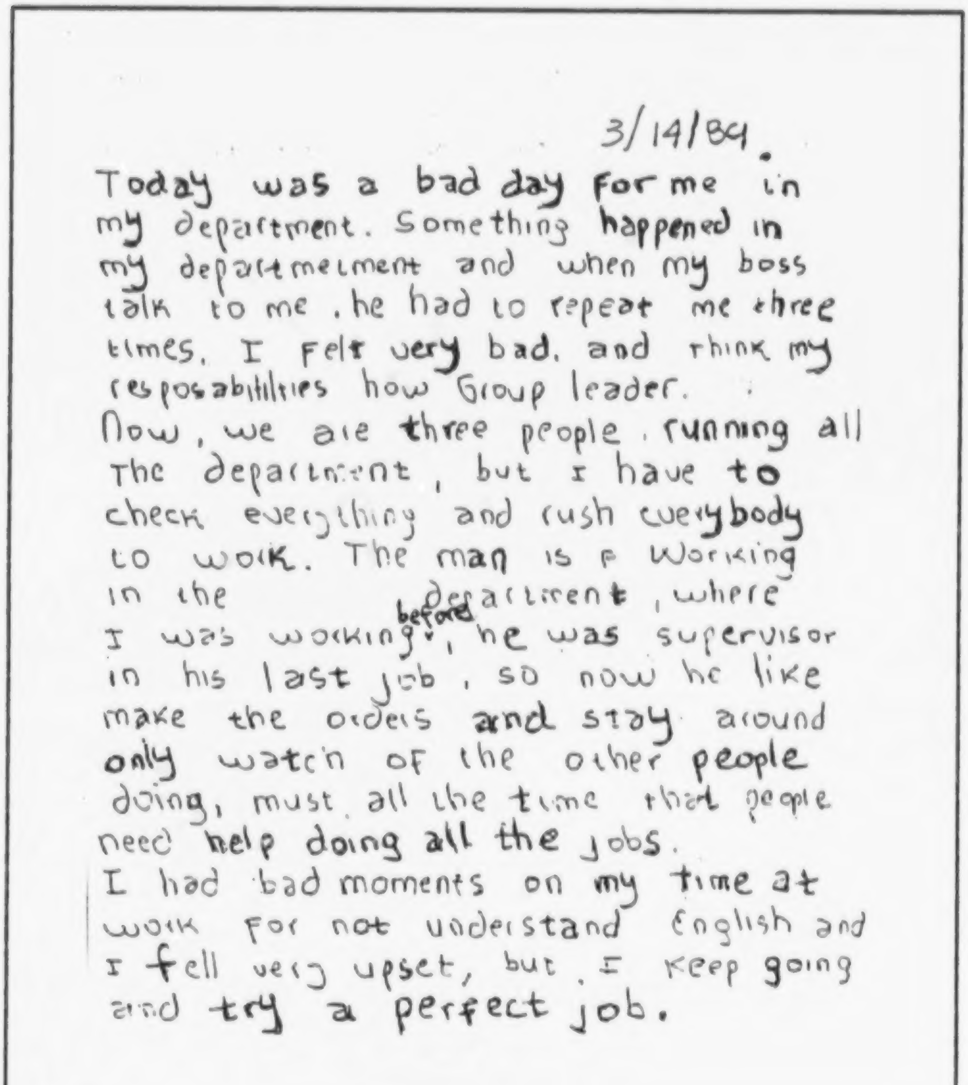
At The Police Station - You were involved in a car accident. You were at the police station to file a report.

You:

Policeman:

You:

4. The dialogue journals were another source of issues. Students wrote in their journals once a week. Some students wrote freely. Others needed the guidance of a question to which they could respond. Dialogue journals provided a wealth of issues for problem posing codes.



3/14/84.

Today was a bad day for me in my department. Something happened in my departmelment and when my boss talk to me, he had to repeat me three times. I felt very bad. and think my resposabililties how Group leader.

Now, we are three people running all The department, but I have to check everything and rush everybody to work. The man is Working in the department, where I was working before, he was supervisor in his last job, so now he like make the orders and stay around only watch of the other people doing, must all the time that people need help doing all the jobs.

I had bad moments on my time at work for not understand English and I fell very upset, but I keep going and try a perfect job.

Listening for Issues from Management

These were the ways I listened for issues from management:

Before classes began:

1. The Workplace Literacy Needs Survey that supervisors and group leaders completed before the classes began (Appendix A).
2. The discussions held with both levels of management.

After classes had begun:

1. The written checklists given to supervisors about student progress (Appendix B, Monthly Checklist).
2. The informal check-ins in the hall or during visits to production areas.
3. The mid-cycle evaluation.

Additional codes with discussion questions and learning activities are included in Appendix B.

Chapter 3

Technical Training

Learning About the Various Production Processes of the Company

The goals of the technical training section of the program were to teach job-specific terminology, the description of processes, the names of tasks, the precepts of quality, and guidelines for productivity. The Manager of Employment and Training and I worked together to set up and run the training portion of the workplace literacy class. The various steps in the production of printed circuit boards were shown and explained to the students. They watched, listened to, and interviewed many employees in the company. Also the students wrote manuals on their own jobs. The approach used for the manual writing portion of the technical training came from Barndt's English At Work: A Tool Kit for Teachers (1986). In this approach students investigated their job by interviewing co-workers and supervisors in order to learn job specifics.

Through this process of investigation students were able to apply meaning to their work as they developed an understanding of their place in the production process. Through assignments, communication skills were practiced as students had to ask questions, clarify the answers, and bring the results to class.

In placement interviews many students had been unable to describe their jobs in English, nor name the company product or its uses.

Technical Training: A Collaborative Effort

In part, the technical training was a collaborative effort between the Manager of Employment and Training and the ESL teacher. Other company employees were also involved in the training. Lectures, demonstrations, and tours of the production area were planned. It was important to make this learning participatory, and the students participated by telling what they knew about the production process. At the end of the session I asked the students to evaluate the class by writing in their journals. Rin wrote how happy he was to learn how useful PC Boards were. It made him feel more important to be doing his job.

We used a variety of materials to make the presentations more concrete. Pictures from trade magazines were used that illustrated uses of PC boards. A place in Altron was found where the class could easily see P.C. boards in use: the telephone switching room.

I suggested that students might like to see the raw materials of the boards they work with. Individual plastic bags with three-inch squares of laminate, pre-preg, and aluminum were prepared and brought to class. Hands-on material helped vocabulary learning.

Safety Training Incorporated in Technical Training

During visits to the different departments in the company I had observed the importance of wearing safety glasses when operating a wave solder machine. I had noticed barrels of chemicals and huge vats of acid and I wondered how well the limited English proficient workers understood their dangers. Process engineers told me that workers couldn't read warning labels and chemical information sheets. The engineers were concerned for the workers and for the company. The company's commitment to workplace literacy was in part to address this problem.

At this point we decided that safety training was to be incorporated into the explanation of each process step rather than teaching safety as an isolated topic.

A good example of this occurred when discussing and handling raw materials. The Manager of Employment and Training distributed white cotton gloves which are used when handling pre-preg, a fiberglass material. Students who handled pre-preg in their jobs were asked to explain the importance of the gloves.

Safety issues became an important part of technical training. Good material for teaching health and safety through the problem posing approach is available in "Unit VI" of ESL for Action (pp. 91-119). This unit offers a selection of codes on health and safety issues common to many companies.

Work Sheet

Dialogue for Safety Training

A NEW WORKER AT ALTRON

YOU: Hi! My name is Matilda. You're new here, aren't you?

NEW WORKER Yeah. Today is my first day. I'm Salin .I have a lot to learn.

YOU: Well, I've worked here a while. I can answer some of your questions.

NEW WORKER Altron makes p.c. boards. What are p.c. boards used for?

YOU Lots of things. Computers, telecommunication systems, air traffic control systems, VCR , Airplane .

NEW WORKER: Wow! All of those! P.c. boards are really important Are they all like the ones we make in this department

YOU: No. There are two types of boards, rigid and flexible. Altron makes three kinds of rigid p.c. boards. We don't make flexible boards.

NEW WORKER: What kinds of boards do we make?

YOU: Single-sided, double-sided and multi-layer.

NEW WORKER: Oh. By the way, what's in these boards?

YOU: Copper foil, pre-preg, and laminate.

NEW WORKER: Pre-preg--what's that?

YOU: It's fiberglass and resin. Always wear gloves when you handle it. If you don't, you can get a skin rash and you can also damage the board.

NEW WORKER: You sure know a lot! Thanks for answering my questions.

YOU: No problem .

BEST COPY AVAILABLE

Additional materials developed and used in the technical training are included in Appendix C.

Development of a More Participatory Method of Technical Training

In the subsequent cycle of classes, the format was partially altered. Instead of presentations about each process, I invited a worker in each department to come to the class. The lesson then incorporated practice in critical thinking skills such as asking questions, asking for clarification, and learning new vocabulary.

Students interviewed the worker, using a list of questions about the job:

* What was done in the job?
* What was difficult?
* What was especially important to remember in the job?

After the interview, the worker took the class to the department, showed us the machines, and repeated the steps of the process. Students were then able to ask more questions. In the classroom we were able to practice drills to reinforce the question sentence structures and the many ways of asking the same question. By questioning workers students became active participants in learning about PC boards. More English was spoken in class and vocabulary learning was reinforced.

Manual Written by Each Student

The other method used in technical training involved the students themselves as they researched their own job - learning the vocabulary to identify the materials, tools, and procedures in their job. The written description of these tasks, accompanied by photographs, became the **manual** each student created as their culminating class project.

Development of Student Manuals

The development of the students' manuals involved some of the steps outlined in English at Work (Barndt). The steps used were:

- * Practicing skills needed for questioning
- * Interviewing workers in the company
- * Filling in grids with answers to questions about jobs
- * Listing the different tasks on a job
- * Drawing pictures of the tasks
- * Describing a photograph of a worker on the job
- * Naming tools and equipment
- * Examining the materials in the production process

All these steps incorporated many different learning activities which contributed to the students' ability to communicate better and consequently be more efficient employees. Students interviewed colleagues to learn about their jobs, which required them to talk in English to their co-workers and their supervisors. They needed to ask them about names of tools, about processes, and about quality considerations. In order to make themselves understood and to understand responses, students practiced interviewing and initiating conversations from the first day of class.

Modeling and Drill Practice to Develop Interviewing Skills

Before speaking, a student has to understand. For this, modeling and drills were important. I started to ask in ways that would promote repetition while students taught me how to pronounce their names. Over and over again I tried names that were hard for me: Saloeuth, Hoeun, Phoeung. I asked, *"Is that correct? Is that right? Would you say that again? Please repeat. Could you say that slowly?"*

Soon we started on additional skills needed in interviewing: spelling aloud, reading, and writing. I wrote each student's name on newsprint, asking some students to spell their names. I deliberately misspelled some. I was corrected: *"No, no. 'E,' not 'A.' 'So Phea' is two words, not one."*

I encouraged students to say the names aloud. When I had finished writing the list, I asked for volunteers to read the list aloud. Some students interrupted the reading to correct the pronunciation of their names: *"I prefer /ta/. I prefer /zulmira/."*

Sample Dialogue for Practicing Interview Skills

For the first interview activity, I modeled a sample dialogue, using a fluent student as my partner.

Hi, I'm Cindy. What's your name?

I'm Gustavo.

Gustavo, would you write your name here?

Sure.

I modeled again, this time asking the student to spell his name as I wrote it, instead of asking him to write it himself. In the beginning, interviews were short - only one question. This way, students could have an authentic exchange with another person while only having to use two or three language structures.

Classroom Questions Can Be Controlled

Asking a question in class involves many skills:

* Understanding the question.
* Understanding different responses.
* Asking the question.
* Asking for repetition and clarification when needed.

Asking questions away from the controlled environment of the class is more complex. To ask a co-worker a question, in addition the student must:

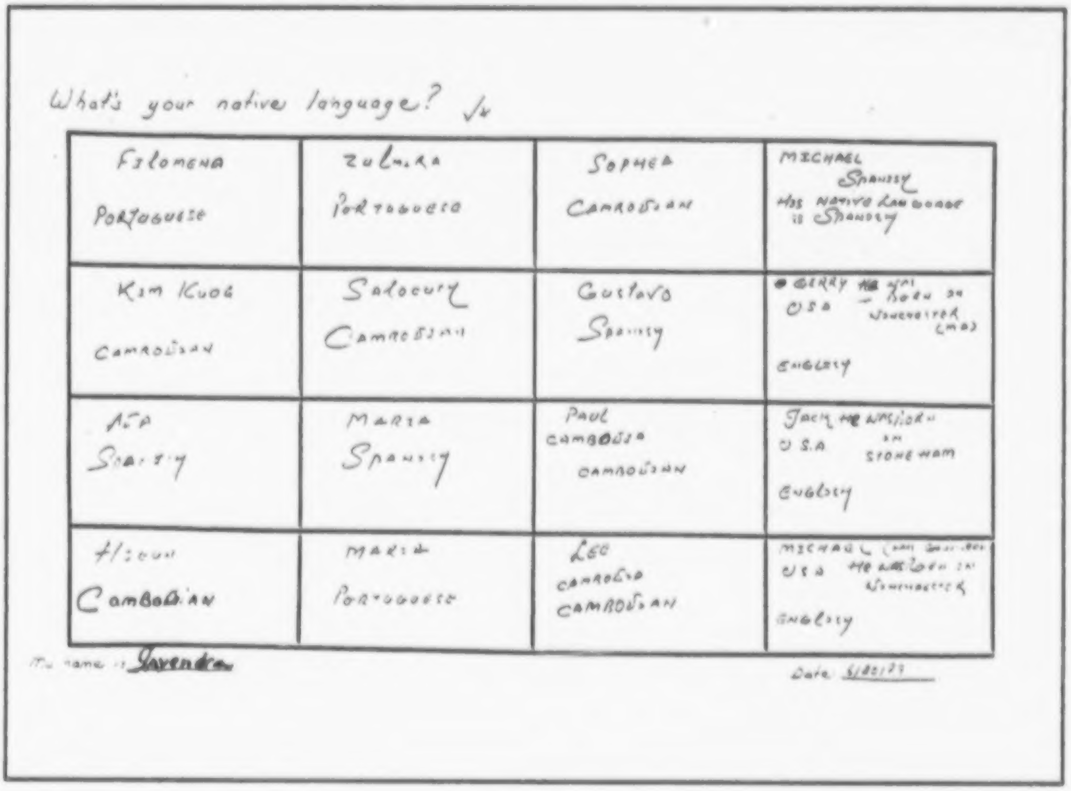
* Get his attention.
* Request his help.
* Terminate the conversation.
* Understand more varied responses.

Importance of Practicing Skills

Practicing each of these skills in class using paired practice and short dialogues gave students the confidence to begin to speak more easily to co-workers.

Communication Grid Exercise in Class

Students used a communication grid as a guide in asking each other questions. These grids provided a controlled structured for the students. More advanced students could fill in the grids with sentences, beginner students could respond with one word.



What's your native language? ✓

FILOMENA PORTUGUESE	ZULMIRA PORTUGUESE	SOPHEA CAMBODIAN	MICHAEL SPANISH HIS NATIVE LANGUAGE IS SPANISH
KIM KUOG CAMBODIAN	SALOCURY CAMBODIAN	GUSTAVO SPANISH	GERRY ~~HE~~ WAS BORN IN WINCHESTER (MA) USA ENGLISH
ANA SPANISH	MARIA SPANISH	PAUL CAMBODIA CAMBODIAN	JACK HE WAS BORN IN STONEHAM U.S.A ENGLISH
HIEUN CAMBODIAN	MARIA PORTUGUESE	LEO CAMBODIA CAMBODIAN	MICHAEL [illegible] USA HE WAS BORN IN WINCHESTER ENGLISH

My name is Javendra

Date 5/20/93

After asking about names and language, we learned to ask about each other's department, shift, division, and job. Students filled in grids with information about each other. Over and over they used the questions:

What is your job?
What is your department?
What is your division?
What shift do you work?

Interview Grids

Using interview grids, students had a structured pattern to follow which instilled confidence in them. Shortly, every student was talking to a classmate. Soon I heard other questions asked: *"Where you from?" "You work Inner Layer too?" "I no write good." "You write you name here?"* The room was filled with talking. I had my turn to ask each person a question and they asked me questions also. Soon, all our grids were finished. Some of the more advanced students wrote *"His name is Hoeun."* Others wrote *"She name Meera."* Beginners wrote just the name of each student. I collected the papers and made a note to have a learning activity with possessive pronouns during the next class.

Photo Collage: Used with Grid

A photo collage combined with a grid was useful in encouraging more detailed questions and answers about the students' jobs. They were able to ask each other about their jobs, repeating sentence structures and recording information. This classroom practice prepared the students for asking questions on the workfloor.

BEST COPY AVAILABLE

[illegible]

Where do you work? What are you doing in the picture?

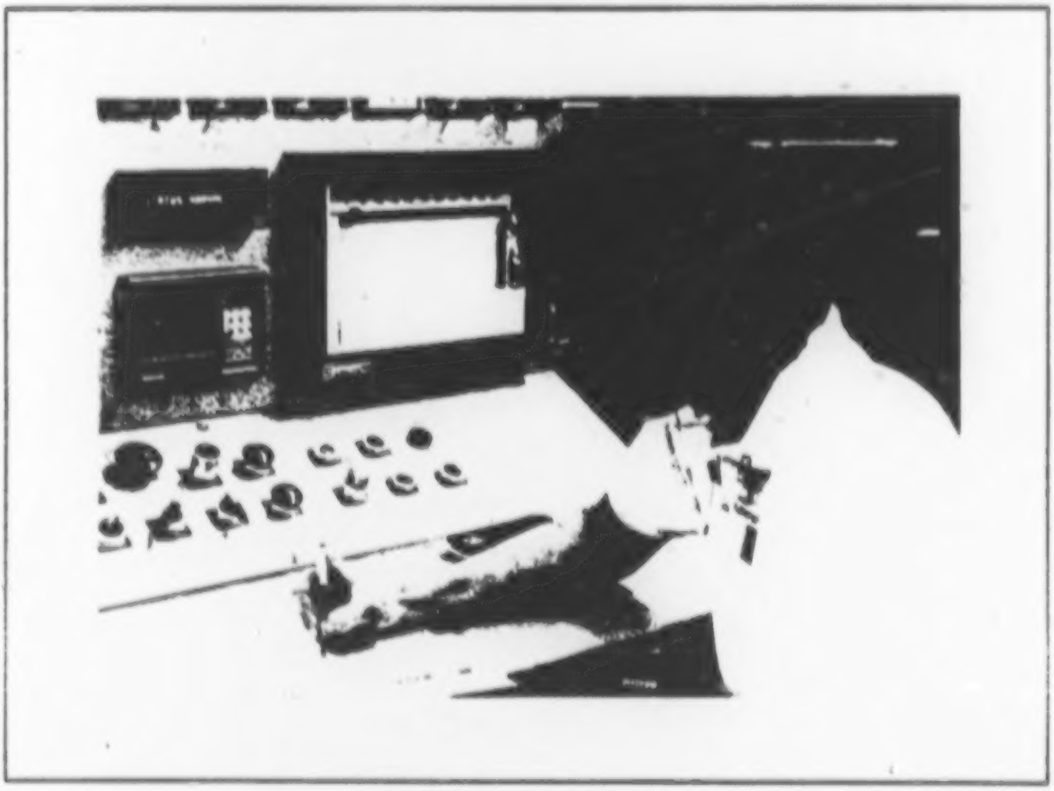
Marilda works in QTD. she is inspecting.	He works in IPD He is inspecting. Ismael	He works in IPD He is writting a note. RIN
Patrick He works in MLD He is checking	He works Lamination He is looking at the pressure Huns.	He works in MLD He is blacking out. Jose
Luisa She works in MLD. She is inspecting.	Sarin He works in IPD. He is testing.	Yoeuth works in Lamination. He is writting

Taking Questions to The Departments

After they asked these questions, listened to their classmates' answers, and wrote the information ten times, the students were ready for their homework assignment: to ask the same questions of other workers outside class.

Interviews: Valuable Learning Tools

Interviews were one of the most successful language acquisition activities I used. They provided the vocabulary needed for the manuals. Students repeated a question pattern over and over, but they used it each time in a communicative situation.



Students Draw and Write about Their Tasks

After naming jobs and departments, we proceeded to list tasks on the job. Students drew themselves doing their tasks. While they were working, I spoke to them individually, asking about a particular process or a machine. Students took pictures of their tasks to their work stations to ask co-workers about terminology. This work sheet was adapted from English at Work (p. 73).

5. I am writing on my work

4. I am showing my Group leader a board

3. I'm TAKING my bords to the Oven

2. I am TAKING my Tools foR use

1. I punch my card

Students List Steps in Their Jobs

The next assignment was to list ten steps in their jobs that would be photographed. For the beginning students, or the students whose literacy skills were not adequate for this task, I visited them at their job. After asking permission of their group leaders, I wrote the steps as they described them.

Work Sheet for Listing Steps in a Job

This week I will be taking pictures of you at your job. Each student will have 10 pictures. Write down 10 of the most important tasks in your job. Pretend you are training a new worker to do your job. What does the person need to know?

1.
2.
3
4.
5.
6.
7.
8.
9.
10.

Work Sheet: Listing Activities, Tools, and Materials

In another assignment students listed the tools and materials used in the various tasks performed in their jobs .

English in the Workplace

NAME Maria

Date 1-19-89

List the activities in your job, what tools you use, and what materials are required.

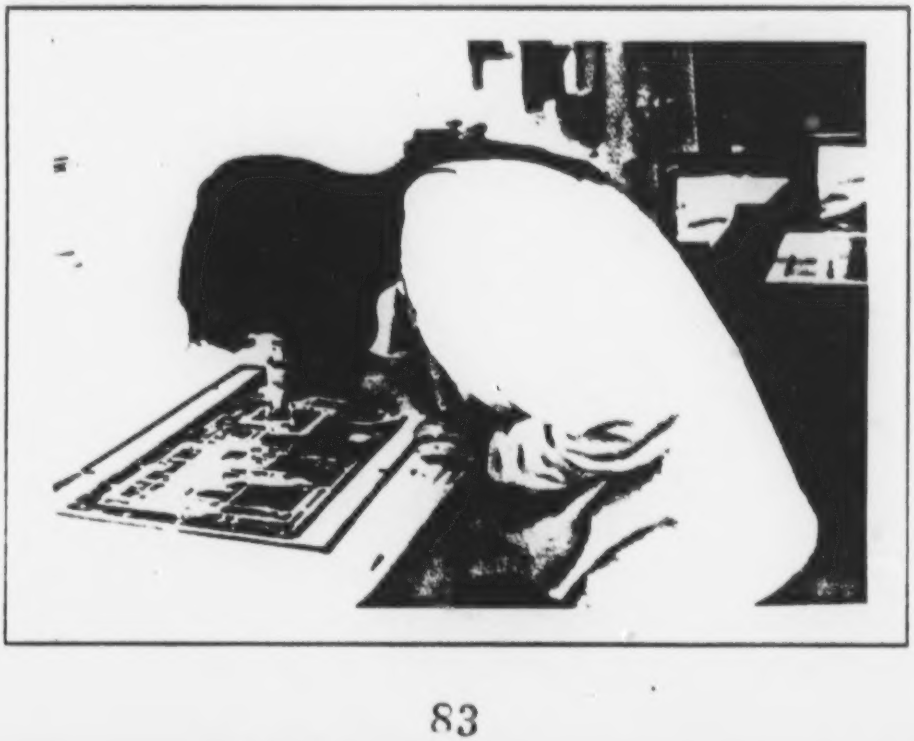
Activities	Tools Used	Materials Required
Rework sheet	pen	pen, work sheet
T.U. missing mask		brush, and S/M
Solder over cu. on circuits	Soldering iron	flux, solder, Alcohol, rag
Pick out shorts on boards	Knife, Soldering iron	flux, Solder, Alcohol, rag
Change solder Tip	Screwdriver	Solder Tip
Repair scratch in gold finger	drummel Tool	Sandpaper, scotch brite, Alcoh. Rag, gold plater, eraser
unplug holes	drill, soldering iron	flux, Solder, Alcohol rag
repair broken Circuit	Knife. wire feeder	Welding machine
repair blister	pacman ball mill	epoxy, Rag, Alchol. over

Taking the Photographs

Next came the photography sessions. I went to every student with his list of tasks. I took ten pictures of each student. The day the pictures were ready was an exciting one. The students put them in order and taped them on 8.5 x 14 sheets of paper. There was a lot of talking in the classroom as students explained their pictures to each other.

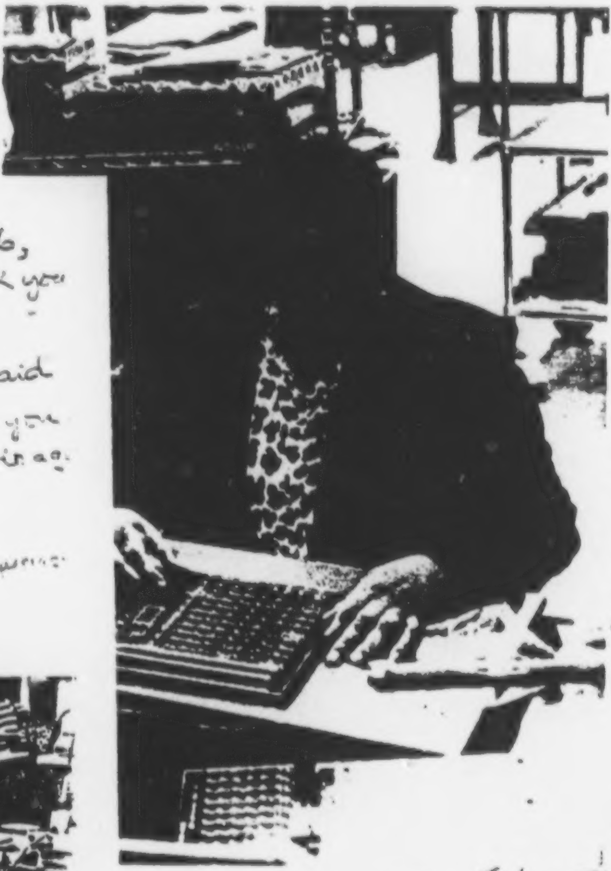
Photographs: Useful Material for Lessons

Photographs of students at work were used in their manuals but also were used for many other classroom lessons. The photographs used to illustrate this report were those used in the manuals and for classroom exercises. The pictures generated a lot of spontaneous conversation.



Writing the Manuals

For the next class, I made duplicates of the picture sheets - one for the rough draft, one for the final draft. Students then began their stories. I encouraged them to write all they knew about the task in each picture. They asked each other about spelling.



① He Said "I'm do good job,
and he said thank you

② When I do did something wrong, he said
Listen [illegible] beautiful before you
I nothing and he show me how to it ag.

This picture I showing my supervisor
after my job done.

Maria,
What are connect[illegible] for?
What is difficult
about [illegible]
How do you know
where to put the
connectors?

Good

[illegible] my Job. This Job [illegible]
[illegible] the conne[illegible]
[illegible] on the top of the board [illegible]
Then [illegible]
— 1. The Connectors [illegible]
[illegible] Send [illegible]
in # out of the board
[illegible] find the Connector [illegible]
[illegible]

Manuals Provided Student Initiated Material for Grammar Lessons

I looked over the rough drafts, noting grammar mistakes. I planned a lesson on using the present progressive. After practicing this structure in class, students read their stories and corrected their use of the present progressive. When I read the drafts again, I pencilled questions such as, *"Why are you checking the water gauge?" "What is difficult about soldering components on a board?"*

Production of the Manuals

I used class time to have a fifteen-minute conference with each student to talk about the manuals. After the manuals were expanded, they were edited, first by other students, then by me. I circled spelling and structure errors, and students checked with each other for help making corrections. I typed the text. Students matched the text to the original photo. We laid out the manuals in class and duplicated them. The students were presented with their completed manuals at graduation. Managers and vice-presidents were also given copies for use as training books for other linguistic minority workers.

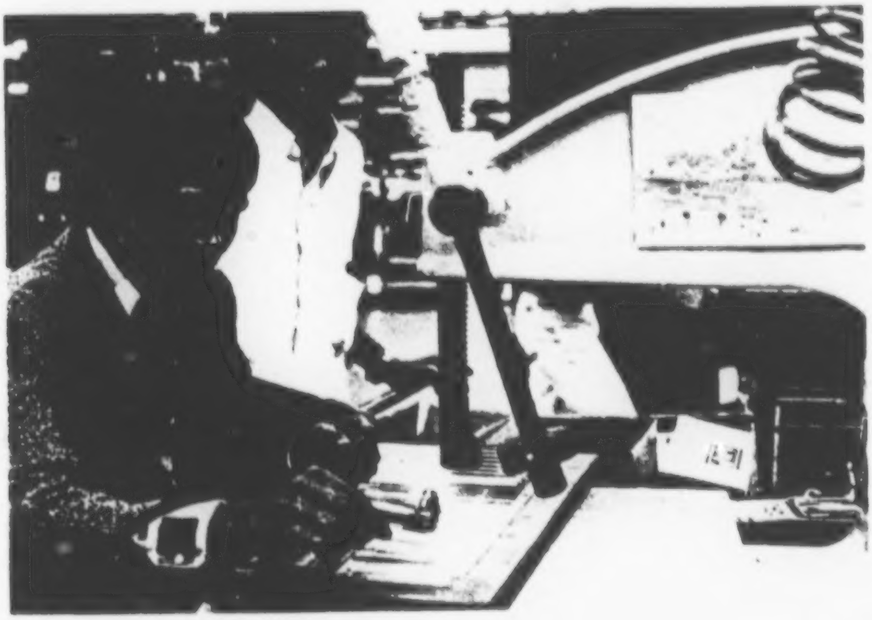
Writing the manuals had involved many different processes. The students had been active participants in seeking information and recording it. They had initiated their own learning experiences and they achieved levels of interaction with supervisors and co-workers that had not been evident before. On completion the students had the satisfaction of having produced meaningful information in a written form.

Student Manual

INTERCONNECT PRODUCTS DIVISION

PRIMARY ASSEMBLY

Workplace Literacy Partnership
Altron Incorporated/Cambodian Mutual Assistance Association
US Department of Education/Division of Adult Education
December, 1989



HOEUN

I I AM PUTTING PINS IN THE BOARD. I DON'T WANT MISTAKES IN MY JOB AND I HAVE TO BE CAREFUL ALL THE TIME ABOUT PUTTING THE PINS IN BACKWARDS. I REMEMBER ABOUT THE NUMBER SIDE.

THE PINS ARE PRESSED INTO THE BOARD BEFORE THE HOUSING IS INSTALLED OVER THEM. THE CUSTOMER WILL BE ABLE TO PLUG CARDS INTO THE HOUSINGS TO MAKE A SYSTEM.

BEST COPY AVAILABLE

2 I AM PRESSING THE PINS DOWN. THIS IS CALLED A ONE-SIDED TOOL. I HAVE TO BE CAREFUL ABOUT THE TOOL TOUCHING SOMETHING INSIDE THE BOARD. THAT IS NO GOOD. IT IS MY MISTAKE. IT DAMAGES CIRCUITRY. A SINGLE-SIDED TOOL PUTS DOWN ONE ROW OF PINS AT A TIME. A DOUBLE-SIDED TOOL IS FASTER, BUT INCREASES THE RISK OF DAMAGING THE CIRCUITRY.

3 IN THIS PICTURE ARE MY GOUP LEADER AND ME. HIS NAME IS YIETH LANG. HE SHOWS ME THE JOB THE FIRST TIME. AFTER I PUT THE PINS IN, I NEED TO CUT THE TOP PINS OUT BEFORE I PUT THE HOUSING IN.

4 BEFORE I SEND THE BOARD TO MECHANICAL ASSEMBLY I HAVE TO WRITE MY NAME ON THE TAG. EVERY BODY WHO WORKS HERE HAS TO PUT HIS NAME. WHEN SOMEONE PUTS PINS ON THE WRONG SIDE OF THE BOARD, MY SUPERVISOR AND THE INSPECTORS KNOW WHO DID IT.

5. I SEND THE BOARD TO THE MECHANICAL ASSEMBLY AREA, WHERE OTHER PARTS WILL BE ADDED TO THE BOARD.

6. I AM PUNCHING MY TIME CARD AT 3:30. I LIKE TO WORK SECOND SHIFT BECAUSE I LIKE TO BE OFF WORK IN THE DAYTIME. I HAVE TIME TO GET MY CAR FIXED, GO TO THE DOCTOR, AND DO ERRANDS.

Chapter 4

EVALUATION

Evaluation: An Ongoing Measurement of Progress

Evaluation is more than the pre-test and the post-test one administers to students, more than the appraisal of a program's effectiveness at the end of a teaching cycle. Evaluation involves looking at goals and continuously measuring one's progress towards them.

The process of evaluation begins with the formulation of a philosophy of teaching and learning. What are the goals of a program? How are they determined? Who will measure their attainment?

At Altron, four groups participated in evaluation of the program: the federal evaluator, Altron's management (including line supervisors), the students, and the teacher.

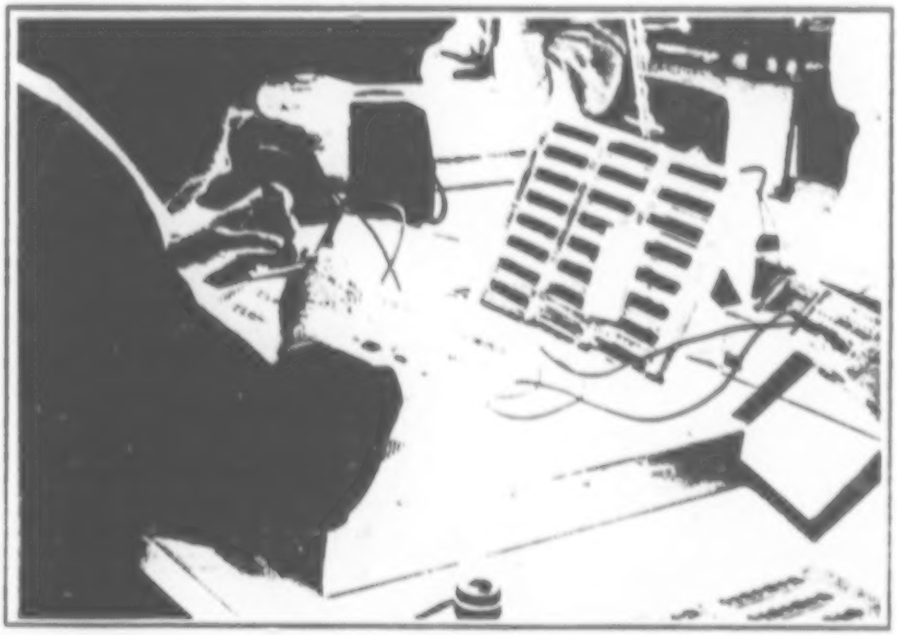
External Evaluators Can Provide a New Perspective

The Workplace Literacy Partnership was designed so that evaluation by outside professionals was ongoing. This was an important aspect of the teacher's learning process. **A teacher needs to be part of the community of learners in the field of language acquisition and program management.** Many times I could not see the change in my students' ability to speak and understand English.

Comments by regular outside visitors were invaluable in enabling me to see the progress students were making. External evaluators gave new perspectives on classroom dynamics and helped to discover student learning problems.

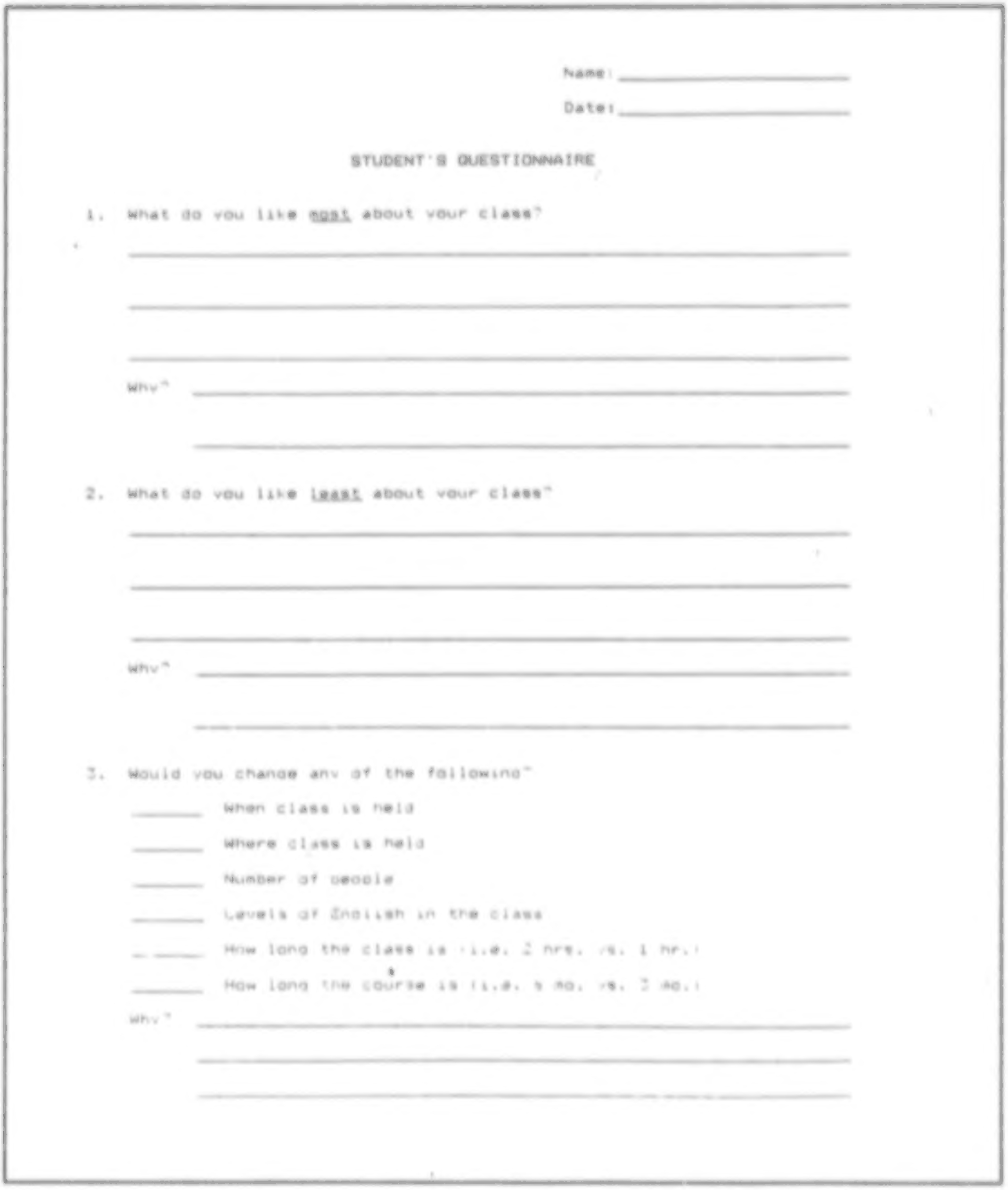
Federal Evaluation

Evaluation by the federal evaluator was an integral part of the program. This evaluation provided a measurement of the effectiveness of the program and also helped determine changes implemented in the second cycle of classes. Mid-cycle and end-of-cycle interviews of students and some supervisors were conducted by the Federal evaluator. These questionnaires were adapted from the Guidebook for Massachusetts Workplace Education Initiative (1987).



Federal Evaluation

Student Questionnaire



Name: ____________________

Date: ____________________

STUDENT'S QUESTIONNAIRE

1. What do you like most about your class?

____

____

____

Why? ______________________________

____

2. What do you like least about your class?

____

____

____

Why? ______________________________

____

3. Would you change any of the following?

______ When class is held

______ Where class is held

______ Number of people

______ Levels of English in the class

______ How long the class is (i.e. 2 hrs. vs. 1 hr.)

______ How long the course is (i.e. 6 mo. vs. 3 mo.)

Why? ______________________________

____

____

Federal Evaluation

Student Questionnaire

4. What have been some of your difficulties in attending class or staying for the 2 hours?

____

____

____

5. In what ways has your idea of the future or your goals been affected by being in class?

_____ more confidence

_____ more optimistic

_____ feel more secure

What are your plans: ______________________________

____

____

6. Who have been sources of support? (i.e. supervisors, friends, co-workers, family)

____

____

____

7. In what ways has the class changed your present situation? (i.e. better relationship with supervisor, can communicate better with co-workers.

____

____

____

Federal Evaluation

Student Questionnaire

8. In what ways has learning in the class changed your opinion of yourself?

____

____

____

9. If you could change one or two things to improve your class, what would it (they) be?

____

____

____

10. Would you recommend this class to another co-worker?

____

____

____

Why? ____________________________________

____

____

Mid-cycle Evaluations Provide Indicators of Student Expectations

From the use of these evaluations it was learned that some students wanted a more systematic approach to studying English grammar, that writing in the journals and reading responses were useful activities for them, and that although most students wanted to continue the technical training, some did not want so much class time spent on it. Some indicated that they did not want to take the time away from the ESL class for technical training. This led to the devising of a format for technical training that incorporated ESL learning which was more student centered.

Student Evaluation Checklist

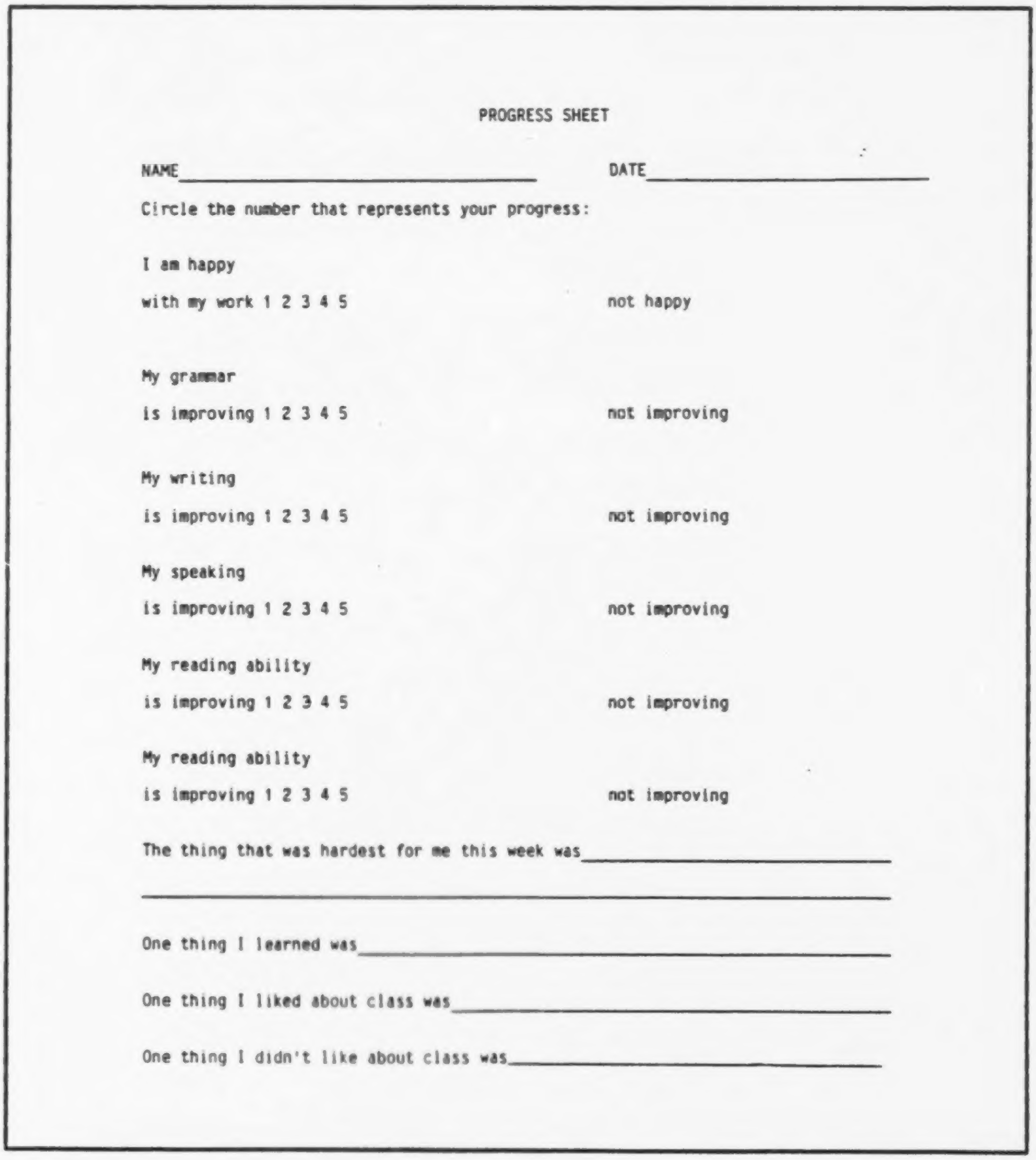
Critical thinking skills are sharpened when students provide on-going evaluation of their learning. Students completed an evaluation checklist after every four classes. The checklist had several purposes:

- **To Encourage Critical Thinking**

  The students evaluated how much they liked (or disliked) an activity, and how well they felt they had mastered some of the communication activities practiced in class.

Evaluation

Progress Sheet



PROGRESS SHEET

NAME______________________________ DATE________________________

Circle the number that represents your progress:

I am happy

with my work 1 2 3 4 5 not happy

My grammar

is improving 1 2 3 4 5 not improving

My writing

is improving 1 2 3 4 5 not improving

My speaking

is improving 1 2 3 4 5 not improving

My reading ability

is improving 1 2 3 4 5 not improving

My reading ability

is improving 1 2 3 4 5 not improving

The thing that was hardest for me this week was__________________________

____

One thing I learned was____

One thing I liked about class was______________________________________

One thing I didn't like about class was__________________________________

Evaluation by Students

* To Get Feedback from Students

The checklists told me which activities the students had enjoyed, which skills they needed more time to master, and what they wanted to learn. The information guided the planning and organizing of subsequent classes because students named their own learning goals for the following week.

EVALUATION

I liked:	a lot	so so	not at all
1. talking about names			
2. talking about why I came to the U.S.			
3. talking about my job in my country			
4. practicing using verbs in the past tense (worked, was)			
5. practicing asking someone to repeat instructions			

I can:	easily	a little	not at all never
1. say to a new worker I prefer __________ (name)			
2. ask someone to repeat			
3. ask someone to check my work			
4. talk about what I did on the weekend			
5. tell someone how I feel			
6. name myclassmates			

Next week I want to learn ____________________________.

Evaluation Checklists Had Several Purposes:

- **To Provide a Review for Students and Teacher**

  The list of activities and competencies gave students and the teacher an overall picture of the month's learning. It gave self-confidence to students as they identified accomplishments and it provided materials for lesson review.

- **To Provide Information for Reporting to Management**

  The checklists contained the basic information for reporting to supervisors about student work and upcoming activities.

These regular evaluation exercises provided an opportunity to stop, reflect, take credit, and implement change. They were an important part of the program.

Other Evaluation Tools Used in the Program

Additional ways to monitor student progress included: topics for class discussion, practice of grammar points, and role plays based on workplace situations.

Use of Role-play in Evaluation

Near the end of the second teaching cycle, Nadia turned to me in class one day and said, *"Maria wants you to give us dialogues to practice, to learn. We practice, then we take away the paper."* I said, *"Sure, Nadia, practicing dialogues is a way to learn a language. What situations would you like to have a dialogue for?"*

Nadia replied that she wanted me to pick the situation. I said that I couldn't speak for the class. Nadia said, *"Okay. Problem with a supervisor."* I quickly wrote it on newsprint. Ravinder said, *"Supervisor wants us work too fast."* Other students nodded. I said, *"Who speaks first?"* Gustavo said, *"The supervisor."* I asked, *"What's his name?"* *"Joe,"* Tho replied. *"How about the worker?"* *"Mike,"* said Meera. I wrote *"Joe,"* and paused. Ravinder said, *"I want you to do this job fast."* Six students in the class proceeded to construct the encounter between Joe and Mike. I wrote exactly what they said. Meera, often quiet in class discussion, spoke up when verbs were wrong. Line by line, some dictated, others revised. Sometimes they argued. I waited to write until there was a consensus. The only correction I made was to omit "the" from their mention of Personnel. Collectively they used their knowledge of company politics, company organization, discourse analysis, and grammar structures to create a dialogue from their own situation. I was able to use the dialogue as an informal checklist to identify improvement in vocabulary, pronunciation, grammar, self-confidence, and problem-solving.

Dialogue Written by Students: An Evaluation Instrument

A PROBLEM WITH A SUPERVISOR

A play written by the students.

Characters:

Joe:	A supervisor
Mike:	An assembler
Anna, Jim, and Diane:	Other workers in Mike's department
Charles:	The department manager

Scene 1 On the Floor

Joe: *I want you to do this job fast.*

Mike: *Okay, I'll try. But I need help. I never did this before.*

Joe: *I don't care. I want this job now!*

Mike: *Wait a minute. I need time to do a good job the first time.*

Joe: *If you don't finish this job, you can go home!*

Scene 2 Breaktime with Friends

Mike: *Oh! My supervisor is crazy.*

Anna: *Why do you say that?*

Mike: *Because he wants me to finish this job quick, in limited time.*

Jim: *Did you finish the work?*

Mike: *No, I didn't. He told me to go home.*

Diane: *Why don't you go to Personnel?*

Mike: *I'm going to speak to the manager first.*

Dialogue Written by Students (cont.)

Scene 3 In the Manager's Office

Part 1

Charles: *What is your problem?*

Mike: *I want to make a complaint about my supervisor.*

Charles: *Oh?*

Mike: *He gave me a job and he said, "If you don't finish fast, go home."*

Charles: *Wait a minute. I'll call the supervisor.*

Part 2

Charles: *Okay, Joe, what happened with Mike's job?*

Joe: *I needed the job fast. And I don't have enough people.*

Charles: *Okay. Now Mike, what do you say?*

Mike: *The problem is he didn't explain the job. He wanted me to do the job too fast. He was mad and he told me to go home.*

Charles: *Mike, I'm going to talk to Joe alone. Go back to your job.*

Mike: *Okay. Thank you.*

Part 3

Charles: *You can't send Mike home.*

Joe: *Okay, I'm sorry.*

Charles: *Next time, take it easy. Give him a warning first.*

Supervisor Feedback

Supervisor Evaluation: A Critical Link in a Successful Program

The time investment by supervisors in the students and their class was a significant factor in running a successful partnership. Supervisors evaluated student progress in using English on the job in two ways:

1. Monthly checklists of skills we had practiced. Supervisors rated students on the use of these skills.

TO: Supervisors
RE: English for the Workplace Class
FROM: Cindy Cook, Instructor, English as a Second Language

Please continue to support the students by encouraging their attendance in class and by showing interest in their homework assignments. (Altron's students have been given many worksheets that require them to practice their English by interviewing co-workers.)

To keep you informed of what we are practicing in class, I have attached self-evaluation checklists that the students were given on December 15 and on January 6. Next week, we will continue photographing and desribing the specific tasks in each student's job.

The students have been in class 13 sessions. Have you noticed an increase in their:

	YES	NO
confidence in using English	____	____
willingness to use English to report a problem	____	____
interest in learning more job-related technical vocabulary	____	____

Your comments and suggestions are important to the tailoring of the program. I will collect this questionnaire on Thursday, January 12. Thank you for your cooperation.

2. Informal check-ins by the teacher gave an idea of how students were progressing. If these short meetings were done often, supervisors learned what activities we were doing in class and they could be more specific in their observations. Instead of *"Yeah, she's talking a little more,"* I might hear *"Hey, she showed me pictures of her family. She talked a lot. She's never done that before."* I kept track of these comments on a student record sheet.
3. For this partnership some supervisors were asked to complete the evaluation questionnaire designed by the Federal evaluator. Responses provided key information regarding the strengths and weaknesses of the program.

Ending the Cycle

Post-test Designed to Test Specific Learning

Post-tests were conducted. The federal evaluator also interviewed some students to get in-depth reactions to the program.

During the post-test, questions that I had been asked at the beginning of the cycle were repeated. Questions included social contact questions and simulations of on-the-job situations with supervisors and co-workers.

An additional section of the test was designed to test technical training knowledge. Students were asked to name the steps in training a new worker. I was looking for the use of technical names of processes, tools, and materials, and for an understanding of the student's place in the production process. The tests were scored by transcribing the students' responses and then comparing them to the pre-test responses.

Graduation: A Participatory Event

Students and management together planned a graduation ceremony. This cooperation was indicative of the commitment of time as well as financial resources by the company. This commitment at all levels in a company is a key to a successful workplace literacy program.

Appendix A

Assessment, Needs Surveys, Guidelines

Agenda for Meeting with Management

ALTRON, INC.

Workplace Literacy Program

Presentation to Management

1. Introductions
2. Explanation of grant from Department of Education
3. Needs Survey
4. How Altron's program will work
    - A. Description of program
    - B. Altron's responsibility

ALTRON, INC.

Workplace Literacy Needs Survey

Name________________________________ Department________________

Date_______________________

How many of the people that you supervise are:

Limited English Speaking (LES)__________

Non-English Speaking (NES)__________

Of the ABOVE GROUP of PEOPLE in your department:

What language groups are represented?

Cambodian_____ Portuguese_____ Other_____

Spanish-speaking_____ Vietnamese_____

What jobs do they perform?

____

____

____

Would it benefit your department more to offer ESL to beginning speakers of English or ESL/ literacy to more advanced speakers?

ALTRON, INC.

Workplace Literacy Needs Survey

In what areas do communication problems arise with your Limited English Speaking and Non-English Speaking workers?

Major Problem = 2 Minor Problem = 1 No Problem = 0

______ Understanding job duties

Understanding instructions

______spoken ______written

Following instructions

______spoken ______written on batch cards

______ Following production changes

Following safety rules and practices

______spoken ______ written (signs, labels on chemical barrels)

______ Understanding work error

______ Correcting work error

______ Reporting problems

______ Complying with attendance/punctuality policies

______ Calling in sick

______ Asking for clarification when necessary

______ Greeting co-workers

______ Filling in batch cards

______ Reading company notices, general announcements, order forms, instructions

Other

ALTRON, INC.

Workplace Literacy Program

Needs Assessment

Name________________ Department________________________

1. Do the Limited English Speakers in your department require closer supervision?

2. Do they have less job flexibility?

3. Do you have to use interpreters? (How often? How much time is wasted?)

4. Is labor turnover high?

5. Are there safety problems?

6. Are there aspects of the job having to do with waste, quality, appearance that may be difficult to get across?

7. Are records accurate?

8. Are there misunderstandings with native English-speakers?

9. How well is the overall process grasped?

10. What happens when there are breakdowns and emergencies?

11. Are there good workers who cannot progress in the company?

12. Is less initiatve shown than you would like to see?

13. How is training done?

ALTRON, INC.

Workplace Literacy

Needs Assessment Survey Results

In October, 1988, managers and supervisors surveyed their departments to determine the number of Limited English Speakers and the kinds of problems caused by their lack of fluency in English.

With over 40% of its workforce Limited English Speakers, Altron is a company dependent on its bilingual supervisors and group leaders. Whole departments are predominantly Portuguese (MLD departments Inner-Layer, QC, QA): training, supervision, and performance reviews are all done in Portuguese.

There is high worker morale and low turnover in the all-Portuguese departments. However, in both the all-Portuguese departments and in the departments with other language groups, workers who cannot speak English are costing Altron time and money:

1. Instructions to workers must be repeated frequently and supervision must be constant. Employees often do not grasp the whole process: they memorize each step.
2. Cross-training is difficult. Workers prefer to learn one job and stay in one department. With a constantly changing market, this lack of job flexibility among its workers is limiting Altron's adaptability.

3. Bilingual supervisors and group leaders are frequently borrowed by other departments to translate during performance reviews or training sessions. Sometimes the best trainer for a job cannot do the training because he does not speak the language of the trainee.
4. There are aspects of the job having to do with quality and appearance which are difficult to get across: there is more waste because workers often cannot grasp the idea of varying standards demanded by different customers of Altron.
5. Keeping accurate records is a problem. Group leaders and supervisors must do nearly all the record-keeping.

An English as a second language program at Altron must first teach the Limited English Speaking workers the English needed for understanding job duties, written and oral instructions, and production changes. Workers also need to learn to fill in batch cards and understand written safety rules.

Not a problem at Altron, according to the managers and supervisors who were surveyed, are tensions between different ethnic groups and non-compliance with the company's attendance and lateness policies.

" Work-Place English" Training Program
Guidelines

Who is Eligible: Any full or part time Altron employee who has passed their 90 day probationary period and is in good standing.This training is designed for non or limited English speaking people.

When is the training: The training will take place over a period of 6 months. The classes will meet on Tuesdays and Thursdays for two hours per class. The first session is scheduled to start on Tuesday,November 15, 1988. Class time is 2:30 to 4:30 pm. 100% attendance at each class session is expected.

Where is the training: The classes will take place at Altron in the MLD conference room.

Cost of the Training: This training is free to the eligible employees.At the end of the 6 month period those people who have successfully completed the program will be paid for the voluntary time they spent in class.This time will be paid at your regular hourly rate. The time spent in class during your regularly scheduled shift will be included in your normal weekly pay.

Class Size: Class size will be limited to 15 people.

IF YOU ARE INTERESTED IN TAKING THIS TRAINING,PLEASE FILL IN THE FORM WITH YOUR NAME,DEPARTMRNT, AND SHIFT. GIVE THE FORM TO YOUR SUPERVISOR OR BRING IT TO PERSONNEL.

NAME:____________________________________

DEPT:______________ SHIFT:__________________

NATIVE LANGUAGE SPOKEN:___________________

Appendix B

Work Sheets for Codes

WORK SHEET FOR THE CODE: I QUIT!

READING

I QUIT!

One day at work, Neang's supervisor said to him, *"Clean the machine."* Neang said, *"OK."* He then cleaned the machine. He was careful to do a good job. He cleaned everything thoroughly.

After Neang finished, this conversation took place:

Neang:	*I've finished cleaning the machine. What job would you like me to do now?*
Supervisor:	*What took you so long? I told you to clean the front of the machine and you took three hours on a simple job.*
Neang:	*You told me to clean the whole machine. I did a good job.*
Supervisor:	*I did NOT tell you that! I SAID to clean the FRONT of the machine! WHY DON'T YOU LISTEN?*
Neang:	*I quit this job. Nobody talks to me like that.*

CODE : I QUIT

INSTRUCTIONS FOR THE TEACHER

I QUIT!

Pre-reading Discussion

Why does a worker say to his boss, *"I quit!?"*

Reading

After the discussion, give everyone a copy of the story. Have them read silently to answer this question: Do you think Neang made a good decision?

Listening and Speaking

Ask and answer the discussion questions in small groups.

Role play the situation. Encourage students to coach each other in the intonation, stress, and pitch Americans and Cambodians use when they are angry.

Role play a different situation. This time, Neang gets angry but he does not quit. What does he say to his boss?

Writing

Write a conversation you had with a boss when she/he got angry with you. Write the same ending or change it.

WORK SHEET: I QUIT

QUESTIONS

Questions

1. What did the supervisor tell Neang?

   What did Neang hear?

2. What is the problem here?

   Why did Neang quit his job?

3. Has a supervisor ever yelled at you?

   What did you do?

4. Why do supervisors lose their temper and yell sometimes?

   In your culture, do people yell when they are angry at work?

5. What else could Neang do?

   What can you do if a supervisor is rude to you?

WORK SHEET FOR THE CODE: STOPPED BY THE POLICE

STOPPED BY THE POLICE

The new blue Mustang was going down the road. There were four young men inside, happy to be going out on a Saturday night. They had worked hard at Altron all week. Now they were going to a party at a friend's house.

Suddenly they heard a siren. Sompheth, the driver, saw flashing lights in his rear view mirror. He pulled over.

POLICEMAN: *Where the *!#!* are you going?*

SOMPHETH: *To a friend's house.*

POLICEMAN: *You got a pretty fancy car. How did you pay for it? Welfare money?*

SOMPHETH: *I have a job.*

POLICEMAN: *Oh sure. Probably selling drugs. Get out, put your hands over your head. We are searching your car.*

(Sompheth and his friends did what the policeman said. The policeman searched the car for drugs. He found nothing.)

POLICEMAN: *Where are you from?*

SOMPHETH: *Laos.*

POLICEMAN: *Go back where you came from. Get the *!#* out of here.*

STOPPED BY THE POLICE

INSTRUCTIONS FOR THE TEACHER

STOPPED BY THE POLICE

Pre-reading

Write the title on the board. Ask a student to read it aloud. Ask why someone would be stopped by the police. Ask if anyone they know was stopped by the police.

Reading

Read the story silently to find out who was stopped by the police and why?

Listening and Speaking

In two groups, students will ask and answer the discussion questions. Teacher will lead beginning group.

Role play the dialogue.

WORK SHEET: STOPPED BY THE POLICE

COMPREHENSION AND PROBLEM SOLVING QUESTIONS

1. Where does this story take place?

   Why does the policeman pull Sompheth's car over?

   Where does this incident happen?

2. How does Sompheth feel when the police car pulls him over?

   How does he feel after the conversation with the policeman?

   How does the policeman feel about Sompheth and his friends?

   What is the problem?

3. Has a friend of yours ever had a problem like this?

   Does this situation happen in your country?

4. Why did this happen?

   Why did the policeman use profanity when he talked to Sompheth?

   How many people have this problem?

5. What can be done about the problem?

WORK SHEET FOR THE CODE: WHAT'S SO FUNNY

WHAT'S SO FUNNY?

Annette works for a manufacturing company that makes men's suits. In the evening, Annette studies English at a school for adults.

Sometimes Annette practices English with her family. She also practices English with her boss. Yesterday, she decided to try something new. She spoke English to a co-worker. This is what happened:

Annette: *Hi, Marie. How is everything?*

Marie: *Bien, et tu? Comment ca va?*

Annette: *Well enough. I'm very busy these days, working and studying.*

Marie(laughing): *Tu es devenue americaine? Tu ne parles plus francaise?*

1. Who is Annette?
   Who is Marie?
   Where do they work?
   What do they do?
   What shift does Marie work?
   What language does Marie use in the conversation?
   What does she say to Annette? (Translate into English)
   Does Marie understand Annette's English?
2. Why did Marie laugh when Annette spoke English to her?
   How did Annette feel when Marie laughed?

WORK SHEET: WHAT'S SO FUNNY?

INSTRUCTIONS FOR THE TEACHER

WHAT'S SO FUNNY?

Pre-reading discussion

In this story, two co-workers are talking. One of them begins to laugh. The other one does not laugh. Why does that happen?

Reading

After the discussion of possible reasons, give copies of the stories to the students. Ask them to read the story silently to find out why Marie is laughing, why Annette is not.

Listening and Speaking

Give a copy of the questions to each beginning student. They can read the questions aloud to the more advanced students. Because the second group will have only aural cues, expect a lot of clarification questions from them.

Writing

Copy the conversation between Marie and Annette, but change the French words to words in your language. Change the names of the women to names in your culture. Complete the conversation. What else do the two speakers say?

Appendix C

Work Sheets for Technical Training

MEMO FROM THE TEACHER
TO THE SUPERVISORS

To: Supervisors
Re: English for the Workplace class
From: Cindy Cook, Instructor

Attached are some of the work sheets from the technical training sessions. The students have had this training one hour a week for 4 weeks. By now, they should be able to name 5 uses of PC boards, tell what kinds of boards Altron makes, and list the 7 steps of the Inner Layer process. You can encourage their interest and further their understanding of the manufacturing process by talking about it with them. Open-ended questions are best.

For example:

How are the technical sessions going?
What was interesting to you on the tour of Inner Layer?
What kinds of things are you doing in technical training?

ENGLISH FOR THE WORKPLACE

ALTRON INCORPORATED

TECHNICAL ENGLISH

ALL STUDENTS WILL:

Name 5 uses for P.C. boards

Name and identify 3 types of P.C. boards

Demonstrate correct handling procedures for boards.

Name the process that occurs before boards come to worker's department.

Name the process that occurs after boards leave worker's department.

Identify quality problems in preceding step in the process.

Identify quality problems in worker's department.

LEVEL 2 STUDENTS WILL:

Arrange in order 25 processes in the manufacture of boards.

Identify quality problems at each stage.

Altron Incorporated
English for the Workplace
Technical Training
Session 2

1. Review - Uses of P.C. Boards
2. Answer Homework Questions
3. Raw materials in boards
    - A. Copper foil
    - B. Pre-preg
    - C. Laminate
4. Proper handling of each material
    - A. Safety problems; preventing safety problems
    - B. Quality problems; if material not handled correctly
5. Kinds of rigid printed circuit boards
    1. Single-sided
    2. Double-sided
    3. Multi-layer
6. Uses of rigid printed circuit boards

VOCABULARY

Inner	Outer	
Thin	Rigid	
Flexible	Rigid	
Single	Double	Multi-layer

INNER LAYER PROCESS

__ ________ is the process of removing the copper not covered with dry film from the inner layer laminate.

__ ________ is the process of placing the circuit design on the laminate. First, dry film resist is laminated to each surface of the laminate. The dry film is then exposed to the circuit design using a photo tool. Finally the inner layer is developed to remove the unexposed part of the dry film.

__ ________ is the process of removing the dry film resist from the circuit image after Etch.

__ ________ is the process of applying heat and pressure to a "book" so that the multilayer boards fuse into a single unit.

__ ________ is the process of coating the copper (making it black) with a residue that will enable the pre-preg to adhere better during lamination.

__ ________ is the process of stacking layers of material to form a multilayer board. These layers include cap or copper foil, pre-preg, and the inner layer laminate. Pacothane, separator plates, caul plates, and pins are used to stack several multilayers into "books".

__ ________ is the process of cutting the laminate to size. The correct size is found on the batch card. The size is measured in inches. 18 X 21 means the laminate is 18 inches wide and 21 inches long.

Lay-up Etch Image Lamination Strip Shear Oxide

ENGLISH FOR THE WORKPLACE
ALTRON INCORPORATED
TECHNICAL ENGLISH
SESSION 3

Innerlayer Process

	Shear	Image	Etch	Strip	Oxide	Lay-up	Lamination
Materials							
Process							
Safety Precautions							
Defects							
(Tools?)							

Gold Line

Taping - The application of tape to the desired area of the panels. The tape forms a barrier between the areas that require gold plating and the circuits that should not be gold plated.

Rolling - After tape is applied equipment with heated rollers are used to squish the tape firmly against the boards.

Gold Plating - Processing of panels in the gold line where by nickel and gold are built up to the desired thickness.

Tape Removal - The removal of tape after the completion of the plating process.

Degreasing - To remove or clean away any of the glue or tape residue left after the completed plating process.

Gold Quality Problems

Gold/Nickel peel

Burnt Nickel

Low gold or nickel thickness

Reflow

Pre-clean - The chemical removal of impurities on the surface of the board.

Reflow - The tranformation of tin lead plating into solder by the application of flux and heat

Post Clean - the washing away of flux residues after the reflow process

Reflow Quality Problems

Burnt panels

Dewetting

Flux stains

Reflow Safety

Heat burns

English for the Workplace
Altron Inc.
Technical English
Copper Solder

C-8

1.) Copper-solder-Process in which copper metal is electrically bonced to the surface and in the holes of the panels. The second step in the process is to electrically bond solder to the surface and in the holes of the panels.

Copper/Solder quality problems:

1.) Pitts -small "nicks " or "holes" in the plated copper which are caused by residues left on the base copper.
2.) Nodules- particles which are jammed into holes and are then plated, this causes the holes to be non useful.
3.) Overplating-this occurs when too much copper is added to the panels (too much amperage or too long a cycle). This causes scrap or makes etching and solder masks application difficult.
4.) Underplating - this occurs when too little copper is added to the panels (too low an amperage or too short a time cycle). This causes scrap.

Copper/Solder safety problems:

1.) Gloves and safety glasses should te worn when unloading panels.
2.) Gloves and safety glasses should be worn when making any chemical adds.
3.) Hoists and shuttles may move automatically at any time, use caution.
4.) Steel toe shoes should be worn at all times.

English for the Workplace
Altron Inc.
Technical English
Strip- Etch

Strip-Etch: Process in which the dry flim applied in O/ L Image is removed. The second step is to "Etch" away any exposed copper not covered by the solder applied in # 1 above.

Stip- Etch Quality problems

Strip - incomplete strip occurs when dryfilm is not fully removed from the panel surface, this causes scrap.

Etch - incomplete etch occurs when not enough copper is "Etched" from the panel surface, this causes scrap.

Etch - over etching occurs when too much copper is removed from the panel surface.

Strip-Etch Safety Problems

1.) Gloves and safety glasses must be worn when making any chemical adds.

2.) Steel toe shoes should be worn at all times.

ENGLISH FOR THE WORKPLACE
ALTRON INCORPORATED
TECHNICAL ENGLISH
DRYFILM SOLDER MASK

Surface preparation:

1.Chemical Clean and microeching to rough up surface.
2.Water rinse to remove chemicals.
3.Blow dry.

DRYFILM VACUUM LAMINATION:

4. Process which dryfilm mask is applied to surface of the panel using a heated vacuum laminator which laminates both sides simultaneously.

Expose:

7.Expose both sides simultaneously with a diazzo photo tool and a u v photo printer at 200-250 mj/cm2.

Development:

8.Develop with 1.0% sodium carbonate,spray at 20-25 p s i,and 95°F-105°F these is to remove all the unpolomorized dryfilm solder mask from the holes and pads.

Curing:

10. U V cure at 5.0-7.0 j/cm2,then bake at 300°F for 60 minutes these steps is to complete the curing process.

Quality:

11. Usual the most common quality problems is mask inside the holes ,and on surface of pads,also handling scratches and missregistration.

Safety:

12. Wash hands prior to lunches and breaks.

ENGLISH FOR THE WORKPLACE
ALTRON INCORPORATED
TECHNICAL ENGLISH
PHOTOIMAGE SOLDER MASK

Surface preparation:

1.Chemical Clean and microeching to rough up surface.

2.Water rinse to remove chemicals.

3.Blow dry.

Coating screen print:

4. Process which wet photo sensitive mask is applied to surface of the panel using 86 polyester mesh,and a squeegee hardness-60-70 durometer.

5.Print first side wait 30 minutes and bake at 170°F for 15 minutes.

6.Print 2nd side wait 30 minutes and bake at 170°F for 30 minutes.

Expose:

7.Expose both sides simultaneously with a diazzo photo tool and a u v photo printer at 300-400 mj/cm2.

Development:

8.Develop with 0.75% sodium carbonate,spray at 30-40 p s i,and 75°F-95°F these is to remove any unpolomorized photoimage solder mask from the holes and pads.

Thermal Cure:

9.Thermal cure 280°F-300°F for 60 minutes, these is necessary to remove the solvents.

Curing:

10. U V cure at 2.5-3.0 j/cm2 these step is to complete the curing process

Quality:

11. Usual the most common quality problems is mask inside the holes ,and on surface of pads,also handling scratches.

Safety:

12. Use the photoimage solder mask on a well ventilated area with exhaust over the printing area,wash hands prior to lunches and breaks.

BIBLIOGRAPHY

Auerbach, Elsa and Wallerstein, N.

English for the Workplace: ESL for Action: Problem Posing at Work, Addison-Wesley, Reading, MA, 1987.

Barndt, Deborah

English at Work: A Tool Kit for Teachers

CORE Foundation, North York, Ontario, Canada, 1986.

Guide book for Massachusetts Workplace Education Initiative

Sponsored by Office of Training and Employment Policy, (MA Executive Office of Economic Affairs), MA Department of Education, MA Executive Office of Labor, MA Commonwealth Literacy Campaign, Prepared by Centre Research, Inc. Fall 1987.

Wallerstein, Nina

Language and Culture in Conflict: Problem-Posing in the ESL Classroom, Addison-Wesley, Reading, MA, 1983.

RESOURCES FOR WORKPLACE LITERACY

Bassano, Sharon and Christison, M.
"Cooperative Learning in the ESL Classroom"
TESOL Newsletter Vol. XXII No. 2, April 1988.
pp. 1, 8, 9.

Belfiore, Mary Ellen and Burnaby, B.
Teaching English in the Workplace
OISE Press, Agincourt, Ontario, Canada, 1984.

Bell, Jill and Burnaby, B.
A Handbook for ESL Literacy
OISE Press, Ontario, Canada, 1984.

Chamot, Anna Uhl
Language Development Through Content - America: The Early Years, Addison-Wesley, Reading, MA, 1987.

Christison, Mary Ann and Bassano, S.
Look Who's Talking (Activities for Group Interaction)
Alemany Press, Hayward, CA, 1987.

Davidson, David and Blot, D.
Write from the Start
Newbury House, Rowley, MA, 1984.

Ellowitch, Azi
A Curriculum in Employment: Women and the World of Work,
The Lutheran Settlement House Women's Program of the Lutheran Social Mission Society, Philadelphia, PA, 1983.

Isserlis, Janet

"What Did You Learn at Work Today?"

A presentation at TESOL, Chicago, 1988.

International Institute of Rhode Island

Providence, RI, 1988.

Kasser, Carol and Silverman, A.

Stories We Brought With Us: Beginning Readings for ESL,

Prentice-Hall, Englewood Cliffs, NJ, 1986.

Krashen, Stephen and Terrell, T.

The Natural Approach: Language Acquisition in the Classroom,

Alemany Press, Hayward, CA, 1983.

Long, Lynellyn and Spiegel-Podnecky, J.

In Print: Beginning Literacy Through Cultural Awareness,

Addison-Wesley, Reading, MA, 1988.

Los Hermanos: the Streets of Gold (a Fotonovella)

New England Farmworkers' Council, Springfield, MA.

Center for International Education, UMASS Amherst, MA.

Molinsky, Steven and Bliss, B.

Side by Side: English Grammar Through Guided Conversations:

Book Two, Prentice-Hall Inc., Englewood Cliffs, NJ, 1981.

Robinson, Catherine and Rowekamp, J.

Speaking Up at Work

The International Institute of Minnesota

Oxford University Press, New York, NY, 1985.

Stevick, Earl

Teaching Languages: A Way and Ways

Newbury House, Rowley, MA, 1988.

Strohmeyer, Beatriz and McGrail, L.

On Focus: Photographs and Writings by Students

El Centro del Cardenal, Boston, MA, 1988.

Wheeler, Joann

Speaking for Yourself: Survival ESL Materials

Chinese-American Civic Association, Boston, MA, 1985.

Zanger, Virginia

Face to Face: The Cross Cultural Workbook

Newbury House, Rowley, MA, 1985.